

# Creative Thinking and Writing, Seminar

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# What is creative?

- 1.Seeing  
beyond the  
obvious?
- 2.Thinking out of  
the box?
- 3.What do you  
see in the pic?



# Analytical thinking

[Thinking out of the box]



Mohsin, JKSHIM, 14-7-2014, 19-3-2016

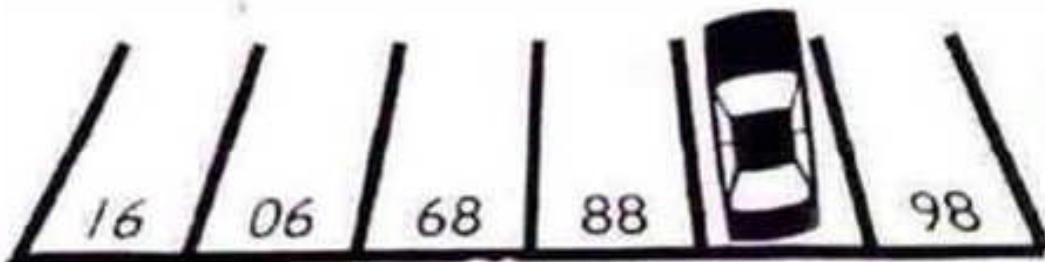
# Iceberg illusion of success



# What the number of the car park?

Perspective matters 😊

2013-11-28 关注即可做题-> 易哈佛



香港小学入学考试题：21题

This Math Question From A Hong Kong Elementary School Test Has Adults Stumped

You don't need a PhD to solve it.

BUSINESS INSIDER

# Verbal aptitude

- Do GMAT workbooks.
- Last semester: Reading, writing and speaking.
- Reading: read some good book every month (<sup>not</sup> chetan bhagat low level stuff).
- Writing: practice in your notebook or diary everyday.
- Speaking: practice alone, read a page aloud from some easy book, like little prince or a Play (ask me).
- Listening: use minilyrics and watch Art movies.

# Quantitative thinking

- Requires brainpower, you cannot just mug up the material and repeat in exam.
- Like marathon runner, you need to slowly ramp up your mental computing stamina by practice, not a last minute race.

# Quantitative thinking

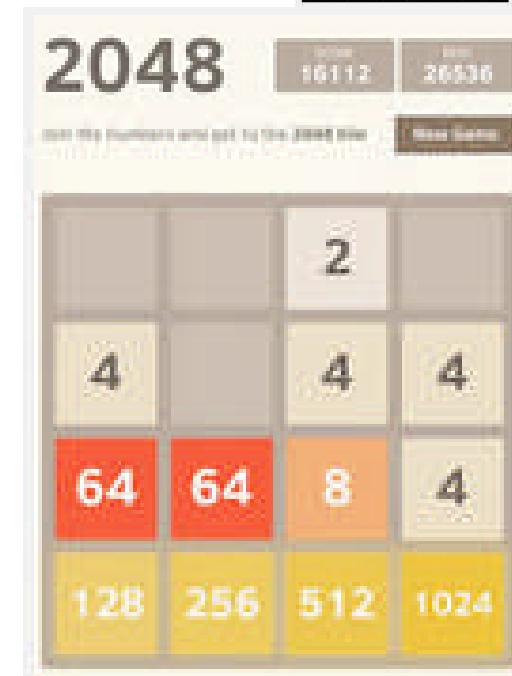
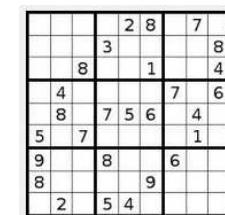
- In the beginning it will hurt your head, so you need to rest by sleeping enough (8 hours a day).
- Don't tire out your brain, or it will fail.
- Practice with small school math problems will drive away your fear of numbers.

# Quantitative exercising

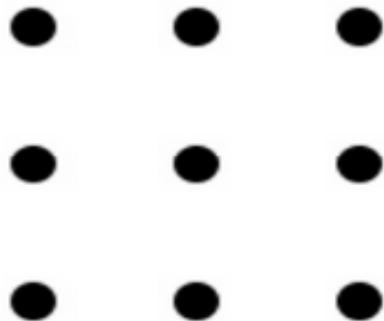
- Sudoku
- 2048
- Paper pencil

**SUMS** (ask me for pdf  
file of problems)

$52+5=$	$15-7=$	$49+2=$	$17 \times 7=$
<hr/>			
$71 \times 2=$	$28 \times 3=$	$5 \times 4=$	$55+1=$
$14-8=$	$14+7=$	$21-1=$	$32/8=$
$51 \times 9=$	$50+7=$	$18 \times 1=$	$55 \times 9=$
$5-4=$	$5+3=$	$3+2=$	$7+5=$

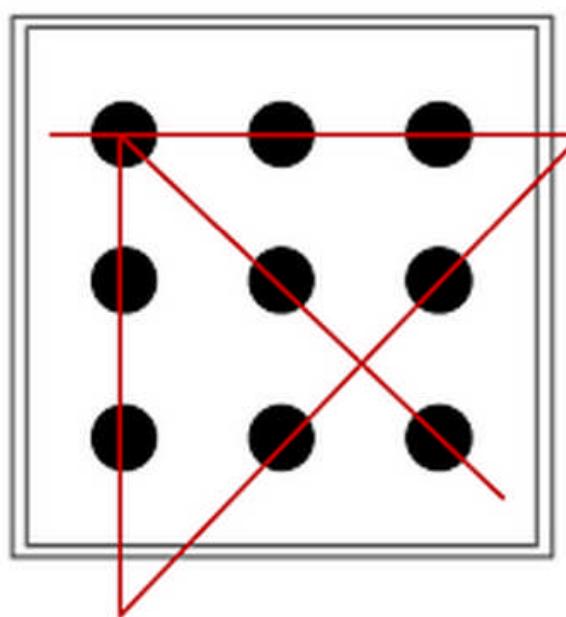


# Out of the box thinking, on your feet (no ready made solutions)



- The "nine dots" puzzle. The goal of the puzzle is to link all 9 dots using four straight lines or fewer, without lifting the pen and without tracing the same line more than once.

Solution: Draw 4 lines that go outside the box, to join 9 dots.



# Driver's dilemma

You are driving along in your bike on a wild, stormy night, it's raining heavily, when suddenly you pass by a bus stop, and you see three people waiting for a bus:

- An old lady who looks as if she is about to die.
- An old friend who once saved your life.
- The perfect partner you have been dreaming about.

What will you do?

# Candidate's answer

- “I would give the bike to my old friend and let him take the lady to the hospital. I would stay behind and wait for the bus with the person I wanted to meet.”

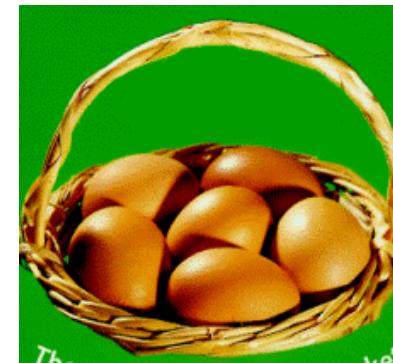
# Relationship puzzle

- Two fathers and two sons went fishing. Each caught exactly one fish and yet there were only three fishes caught. Why ?



# Eggs in the fridge

- There are six eggs in the fridge
- Six men took one egg each.
- Still one egg is in the fridge.
- How? (Think out of the box).



# Fallacy seen on facebook posts

(from 1<sup>st</sup> sem critical thinking notes)

- If A then B == If not(B) then not(A).

But this is different: if not(A) then not(B).

Example:

- If rain then road is wet

SAME AS

- If (road is dry) then not rain.

NOT EQUAL

- If not(rain) then what?

# Cost of coke?



- A bottle of coke cost Rs10. The bottle was worth Rs 9 more than the coke inside.
- How much was the bottle worth?
- Method of solving: use variable for unknowns, and write their relationships, then solve for the unknowns.

# Cost of coke - Solution



- $B + C = 10$
  - $B - C = 9$
- 
- $2B = 19$  (adding top two equations).
  - $B = 19 / 2 = 9.50$

$$B + C = 10$$

$$C = 10 - B = 10 - 9.50 = 0.50$$

## 4 liters from (5 and 3)

You have two containers, one for three litres and one for five litres, how would you measure four litres of water from a river?"



# Solution: 4 from (5 and 3)

You have two containers, one for three litres and one for five litres, how would you measure four litres of water from a river?"

Fill 5, remove 3 = 2 left in big jug.

Put 2 in small jug (1 L space remaining).

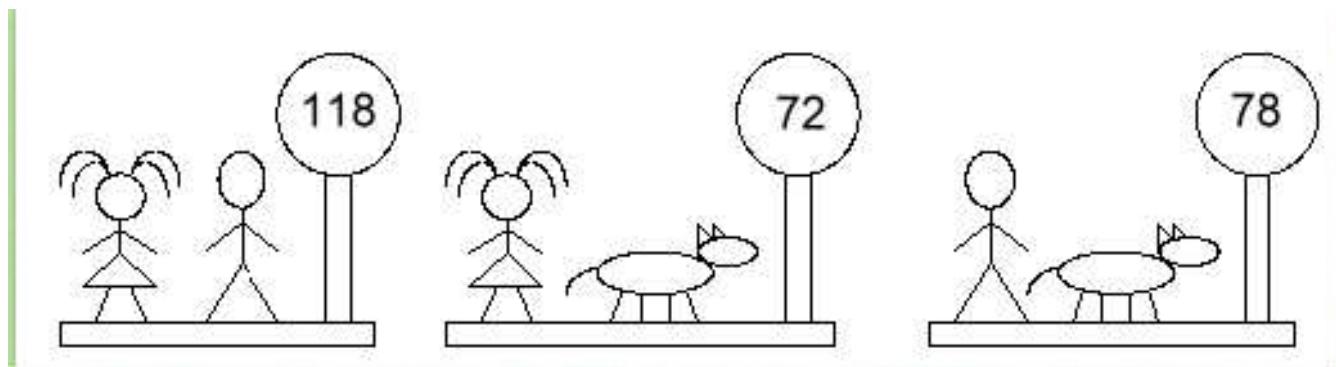
Fill 5, remove 1 into small jug.

Left with 4 in big jug.



# Weight of boy, girl, and dog?

- A set of weighing scales measures weight in kilograms. A boy, a girl, and a dog stand on the scales in three different ways.



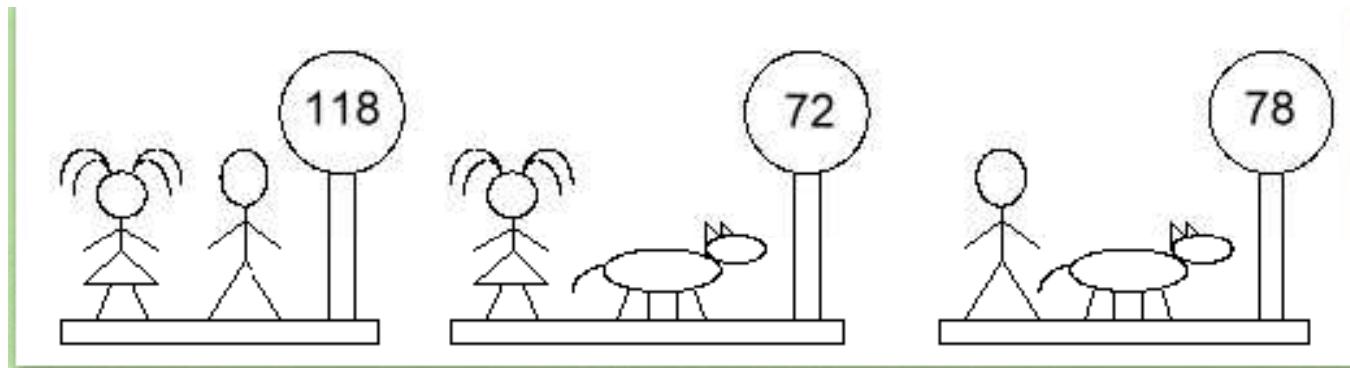
# Weight of boy, girl, dog

- $b+g = 118$
- $g+d=72$
- $b+d=78$



- $b+g+g+d+b+d=118+72+78$
- $2(b+g+d)=268$
- $b+g+d= 268/2 = 134$

# What is the weight of the boy?



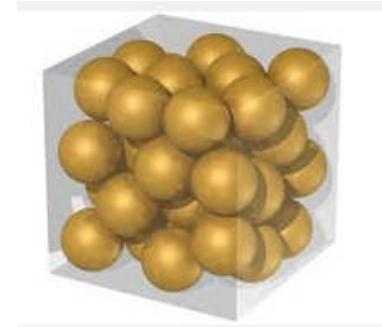
# Solution: weight of the boy

- $b+g = 118$
- $g+d=72$ 
  - $b - d = 118 - 72 = 46$
- $b+d=78$ 
  - $2b = 46 + 78 = 124$
  - $b = 62$



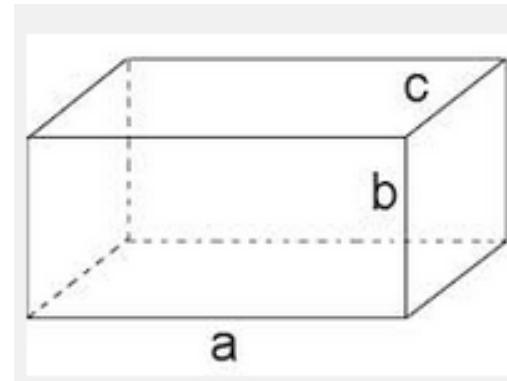
# Exercise

- “How many footballs can you fit in this room?”
- Asked in a people analyst interview at Google.



# Room size, Solution

- Assume: 100 feet \* 100 feet \* 20 feet high room
- Volume of room = 20 00 00 cubic feet



# Football solution

- Assume each ball diameter 1 feet.
- Volume of ball:  $4/3 \cdot 3 \cdot (1/2)(1/2)(1/2) = .5$  cubic feet

volume of sphere of size 1

Web Images Videos News More ▾ Search tools

About 51,400,000 results (0.48 seconds)

Sphere  
Solve for volume ▾

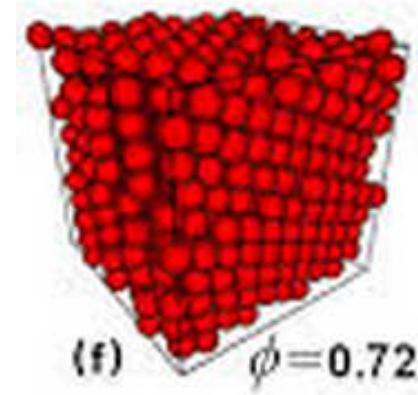
$$V = \frac{4}{3} \pi r^3$$


166 × 163 - nanofolio.org

# Sphere packing

Sphere packing density is 0.7 (from google).

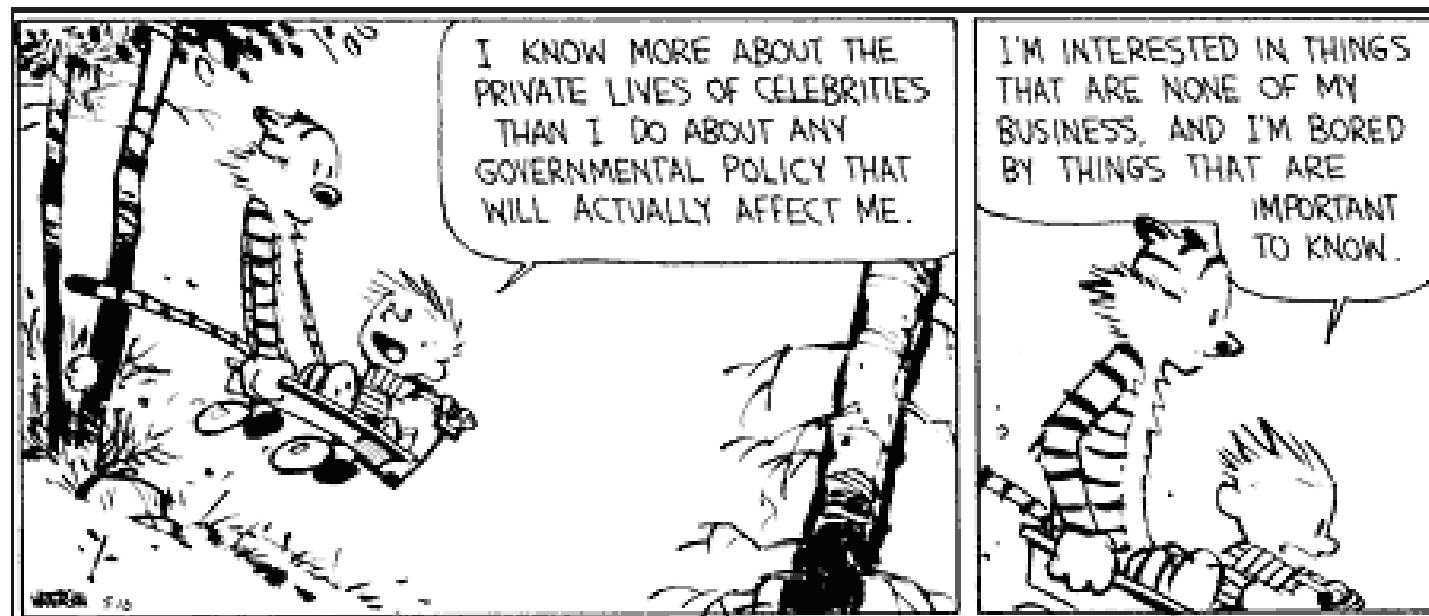
$$200,000 / 0.5 * 0.7 =$$



# Footballs - solution

- $200,000 / 0.5 * 0.7 =$
  - $400,000 * 0.7 = 280,000$
  - ~ 300,000 footballs in the room.
- 
- Interview Question: How much will it cost to fill the room with football?

# Googling



# Define:googling

The screenshot shows a Google search results page. The URL in the address bar is <https://www.google.co.in/search?q=mojo&oq=mojo&aqs=chrome..6S>. The search query "define:googling" is highlighted with a red oval. The search results include a snippet for the word "google" which is also highlighted with a red oval. The snippet defines "google" as a verb meaning "to search for information about (someone or something) on the Internet using the search engine Google". Below this, a link to "Google (verb) - Wikipedia, the free encyclopedia" is shown, also highlighted with a red oval.

https://www.google.co.in/search?q=mojo&oq=mojo&aqs=chrome..6S

define:googling

Web Images Videos Maps Books More Search tools

About 50,40,000 results (0.38 seconds)

google  
/'gu:gl/  
verb  
gerund or present participle: googling  
search for information about (someone or something) on the Internet using the search engine Google.  
"on Sunday she googled an ex-boyfriend"

Google (verb) - Wikipedia, the free encyclopedia  
en.wikipedia.org/wiki/Google\_(verb)  
Ungoogleable (or unGoogleable) is a term for something that cannot be "googled" – i.e. it is a term for something that cannot be found easily using the Google ...

# Translate

A screenshot of a search results page for the query "translate". The search bar contains "translate". Below the search bar, there is a navigation menu with "Web" selected (in red), followed by Books, Images, Apps, News, More, and Search tools. A horizontal line separates this from the search results. The results show approximately 35,20,00,000 results found in 0.44 seconds. A prominent feature is a translation box where "welcome" is translated from English to Kannada (ಸ್ವಾಗತ) and its phonetic transcription (Svāgata). There are also two small microphone icons and a double-headed arrow icon in the top right of the box. At the bottom left of the box, there is a downward arrow icon and the text "2 more translations". At the bottom right, there is a link "Open in Google Translate".

translate

Web Books Images Apps News More Search tools

About 35,20,00,000 results (0.44 seconds)

English ▾ Kannada ▾

welcome ಸ್ವಾಗತ  
Svāgata

2 more translations

Open in Google Translate

# Finding Lyrics (when you can hear few words clearly)

keys to the forest of heaven open up the vaults lyrics

Web Videos Images News More Search tools

About 98,80,000 results (0.61 seconds)

[Soundtrack Artists - Vaults Of Heaven Lyrics | MetroLyrics](#)  
www.metrolyrics.com/vaults-of-heaven-lyrics-a.html

May be buried somewhere in a prayer. The Keys to the forest of heaven. Open up the vaults. Open up the vaults. Open up the vaults. Open up the vaults.

Missing forest

Cached Similar Share

# ... Site:infosys.com

The screenshot shows a Google search results page with the following details:

- Search URL:** https://www.google.co.in/search?q=mojo&oq=mojo&aqs=chrome..69i57&sourceid=chrome&es\_sm=93&
- Search Query:** mba interns site:infosys.com
- Search Tools:** Web, News, Images, Videos, Maps, More, Search tools
- Results Count:** About 36 results (0.37 seconds)
- Organic Results (Left Column):**
  - Infosys Instep – Past Internship Project Database**  
www.infosys.com/instep/internship/projects/project-2012.asp  
Learn more about projects conducted by interns at Infosys. ... (Bachelor's, Master's, MBA or Ph.D), Project Area, Duration (in weeks), Description (You may ...)
  - Infosys Instep–Internship Opportunities and Projects**  
www.infosys.com › Home › Internship  
Know more about internship project opportunities currently available with Infosys. ... (Bachelor's, Master's, MBA or PhD), Project Area, Duration (in weeks) ...
  - Infosys - Featured Teams | Projects | Internship | InStep**  
www.infosys.com › Home › Internship  
Featured teams undertake management internship and engineering internships ... InStep, for Vivek Pai, an MBA student from Cornell University, and his mentor ...
  - Infosys Instep – Internship Opportunities and Past Project ...**
- Ad (Right Column):**
  - 1 Yr Online MBA Rs.7500**  
www.nibmglobal.com/Online-MBA  
USA Accredited Online MBA.  
25 Years Experience in Education
  - Training & Internship MBA**  
www.gravityautomation.com/  
Summer Industrial Training for MBA  
BBA management student with project
  - Internship Overseas**  
www.globalservicecorps.org/  
Intern in Cambodia or Tanzania  
HIV Education, Agriculture & Health

# -negative terms

The screenshot shows a search results page from a search engine. The search query is "mba interns site:infosys.com -engineering". The results are filtered by the "Web" category. There are 3 results displayed:

- Infosys - Testimonials | Life as an Intern | Internship | InStep**  
www.infosys.com › Home › Internship › Life as an Intern ▾  
Transcript. There are not many companies in the world where diverse backgrounds are valued as highly as in Infosys.' As a MBA student I was looking for an ...
- Infosys Instep - USA Internship Program | Alumni Interns**  
www.infosys.com › Home › Internship ▾  
Select students from leading universities in the United States of America interned with Infosys. Know the interns from the US and their academic year of study.  
Missing: mba
- Intern profile and diversity - Infosys**  
www.infosys.com/instep/internship/diversity.asp ▾  
Prospective InStep interns can learn more about the work culture, workplace diversity, geographic details, ... Liberal arts. 15%. Technology. MBA. 49%. 36% ...

# ext:ppt (pptx, doc, docx, pdf).

The screenshot shows a search results page with a red oval highlighting the search bar containing the query "critical thinking logic course ext:ppt". Below the search bar are navigation links for Web, Videos, Images, News, More, and Search tools. The search results section displays five entries, each with a title, URL, and a brief description.

About 3,530 results (0.44 seconds)

**[PPT] Philosophy 150: Introduction to Logic and Critical Thinking**  
people.cohums.ohio-state.edu/suzuki42/.../Philosophy%20150Day1.ppt ▾  
Course Packet: Compulsory – downloadable from our website at carmen. Textbook (75\$ or so): Optional – Introduction to Logic and Critical Thinking (5th ...

**[PPT] PowerPoint Presentation - PHIL 002, Section 19 Logic an...**  
www.csuchico.edu/phil/gtropea\_mat/f06/intro\_f06.../intro\_f06.ppt ▾  
PHIL 102-01. Logic and. Critical Thinking Fall 2006. About this course... About this course... There's so many of us!!! About this course... There's so many of us!

**[PPT] About this course... - CSU, Chico**  
www.csuchico.edu/phil/gtropea\_mat/f04/introf04\_files/introf04.ppt ▾  
PHIL 002, Section 5. Logic and. Critical Thinking. About this course... About this course... There's so many of us!!! About this course... There's so many of us!

**[PPT] Critical Thinking Notes**  
www.csus.edu/indiv/l/lillyf/EDTE%2010/Critical%20Thinking.ppt ▾  
Critical Thinking ... What is Critical Thinking? ... Strong Critical Thinking ... Analyze the logic of situations and problems; Express clear and precise questions .... through critical thinking skills or insights requisite to understanding course content.

**Ads ⓘ**

**Logic Pro Courses Online**  
online.pointblanklondon.com/ ▾  
Learn Logic Online w/ Point Blank  
1-2-1 Feedback From Pro Producers

**Critical Thinking Classes**  
www.corporatetrainingmaterials.com/ ▾  
Customizable training materials to teach Critical Thinking courses.

**Critical Thinking Seminar**  
www.reasonforce.com/ ▾  
Learn logic, structure, frameworks used by elite strategy consultants.

**Logic and Critical Thinking**  
www.mooc-list.com/ ▾  
Free online courses (MOOCs) from the best providers.

# Searching “Verbatim”

The screenshot shows a search interface with a red oval highlighting the search bar containing the query "critical thinking" "jkshim". Below the search bar is a navigation menu with "Web" selected, followed by "Images", "Maps", "More", and "Search tools". A second red oval highlights the "Search tools" button. A dropdown menu is open under "Search tools", with "Verbatim" selected, indicated by a checked checkbox. Other options in the dropdown include "All results", "Reading level", and "Clear". The main search results list includes:

- Critical Thinking - jks**  
https://sites.google.com/site/jk...  
Dec 15, 2013 - jkshim. Search Thinking. Č. Updating... Č. ct...  
A third red oval highlights the "Verbatim" option in the dropdown menu.
- jkshim - Google Sites**  
https://sites.google.com/site/jkshimcriticalthinking...  
jkshim. Search this site. Home. Critical Thinking · Sitemap. Home. Sign in|Recent Site Activity|Report Abuse|Print Page|Powered By Google Sites.
- [PDF] Vol-07, Issue-2, Dec- 2013 - Justice K S Hegde Institute of ...  
jkshim.nitte.edu.in/NMR/Vol-07,%20Issue-2,%20Dec-%202013.pdf  
... Market, State and Society in Emerging. India organised by JKSHIM, Nitte on December 29-30, 2013. ..... (i) Learning and thinking skills include critical-thinking.

language arts on Pinterest

# Cache

A screenshot of a search results page from a web browser. The search bar at the top contains the text "hypothesis testing". Below the search bar, there are navigation links: "Web" (highlighted in red), "Images", "Maps", "More", and "Search tools". Underneath these are filters: "Any country", "Any time", "Verbatim", and "Clear". The main search results list includes a link to "Statistical hypothesis testing - Wikipedia, the free ...". A context menu is open over this link, with the "Cached" option highlighted by a red circle and a cursor icon. Other options in the menu include "Similar" and "Share". Below the Wikipedia link, there is a PDF download link for "Introduction to Hypothesis Testing" and a snippet of text about learning objectives.

hypothesis testing

Web Images Maps More Search tools

Any country Any time Verbatim Clear

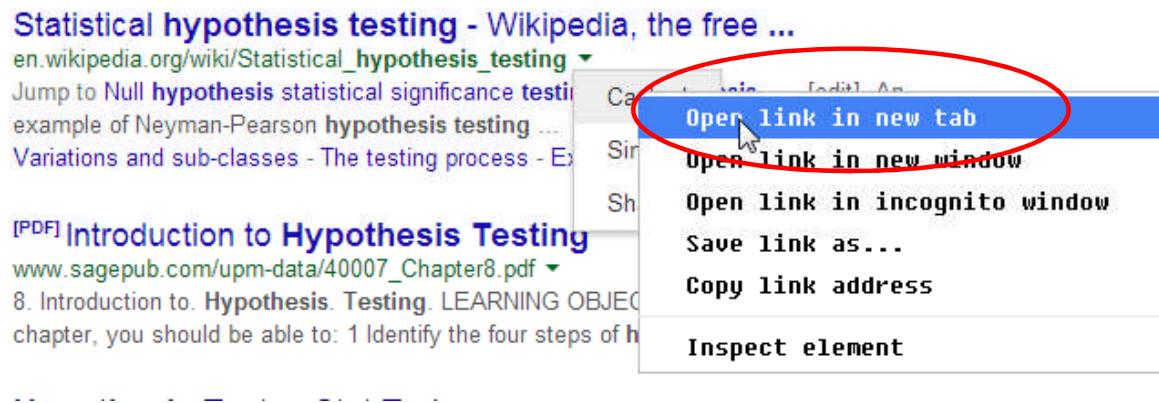
[Statistical hypothesis testing - Wikipedia, the free ...](#)  
en.wikipedia.org/wiki/Statistical\_hypothesis\_testing ▾

Jump to Null hypothesis statistical significance testing ... - [edit]. An example of Neyman-Pearson hypothesis testing ... Variations and sub-classes - The testing process - Ex ...

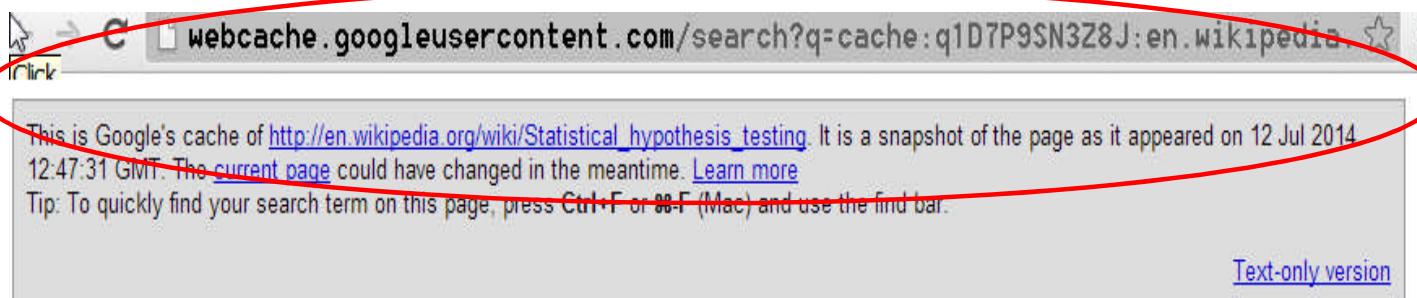
[\[PDF\] Introduction to Hypothesis Testing](#)  
www.sagepub.com/upm-data/40007\_Chapter8.pdf ▾

8. Introduction to Hypothesis Testing. LEARNING OBJECTIVES. After reading this chapter, you should be able to: 1 Identify the four steps of hypothesis testing.

Right click to open cached page in new tab



# The cache is google's copy of the website



This is Google's cache of [http://en.wikipedia.org/wiki/Statistical\\_hypothesis\\_testing](http://en.wikipedia.org/wiki/Statistical_hypothesis_testing). It is a snapshot of the page as it appeared on 12 Jul 2014 12:47:31 GMT. The [current page](#) could have changed in the meantime. [Learn more](#)

Tip: To quickly find your search term on this page, press **Ctrl+F** or **⌘F** (Mac) and use the find bar.

[Text-only version](#)

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Article [Talk](#) Read Edit View history Search 

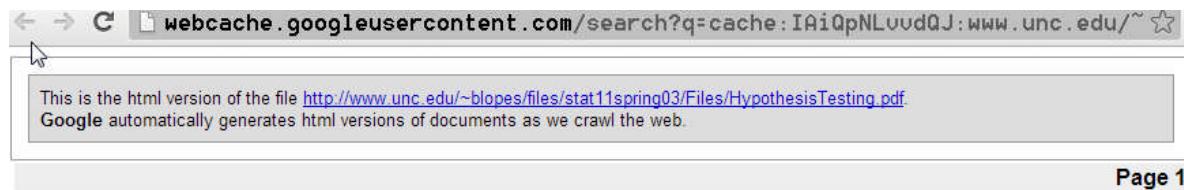
## Statistical hypothesis testing

From Wikipedia, the free encyclopedia

Main page [Contents](#) [Featured content](#)

A **statistical hypothesis test** is a method of [statistical inference](#) using data from a [scientific study](#). In statistics, a result is called [statistically significant](#) if it has been predicted as unlikely to have occurred by chance alone, according to a pre-determined threshold probability, the significance level. The phrase "test of

# Viewing pdf doc in cache...



## Some Hypothesis Testing Examples

### One Tailed (Upper Tailed)

An insurance company is reviewing its current policy rates. When originally setting the rates they believed that the average claim amount was \$1,800. They are concerned that the true mean is actually higher than this, because they could potentially lose a lot of money. They randomly select 40 claims, and calculate a sample mean of \$1,950. Assuming that the standard deviation of claims is \$500, and set  $\alpha = .05$ , test to see if the insurance company should be concerned.

describe the picture



# Pick your image and read the name

red yellow hanging flower

Web Images Videos News More Search tools

Red And Yellow 'hanging Crab Claw F...' [www.picturescolourlibrary.co.uk](http://www.picturescolourlibrary.co.uk) - 401 x 600 Search by image

Caption: Red And Yellow 'hanging Crab Claw Flower' (*Heliconia Rostrata*) In Morogoro Tanzania. Photo by: Eric Nathan.

Orientation: Vertical

Visit page View image

Related images:

Red And Yellow 'hanging Crab Claw Flower' (*Heliconia Rostrata*) In Morogoro Tanzania.

# Search by image

December | 2010 | TastingSpoons | ... X

tastingspoons.com - 350 × 489 - Search by image

red yellow flowers. I've forgotten what these flowers are called as well. But they were hanging everywhere on the grounds of the Sea Temple Resort.

[Visit page](#) [View image](#)

Related images:



About 2 results (0.12 seconds)



Image size:  
350 × 489

Find other sizes of this image:  
[All sizes](#) - [Medium](#)

Results for *red yellow hanging flower*

[Visually similar images](#)



# Currency conversion

1000 dollar in rupees

Web Images Maps More Search tools

Any country Any time Verbatim Clear

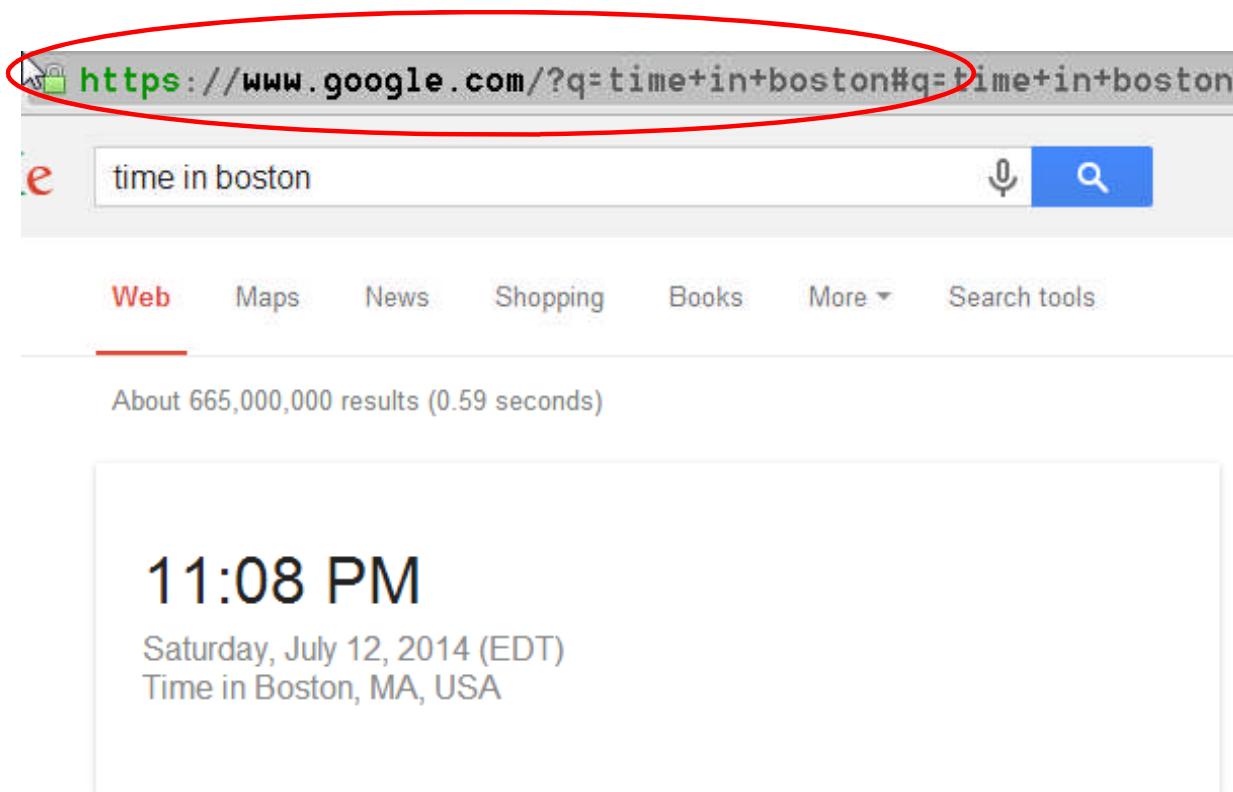
1000 US Dollar equals  
**60025.00 Indian Rupee**

1000 US Dollar 60025.00 Indian Rupee



Disclaimer

# World time



# Astronomical data

A screenshot of a Google search results page. The search bar at the top contains the query "sunset time". Below the search bar, there are several navigation links: "Web" (which is red and underlined), "Images", "Maps", "News", "Videos", "More", and "Search tools". A horizontal line with a red segment under "Web" separates it from the search results. Below this line, the text "About 28,90,00,000 results (0.56 seconds)" is displayed. The main result is a large white box containing the text "7:01 PM" in large bold letters, followed by "Sunset in Mangalore, Karnataka" in smaller text.

sunset time

Web Images Maps News Videos More Search tools

About 28,90,00,000 results (0.56 seconds)

7:01 PM  
Sunset in Mangalore, Karnataka

# Data analytics

- All decisions must be based on facts, not on intuition or rumours.
- Facts require measuring everything (quantifying).
- Analysis of sample data for business

# Quantifying data

- Steps:
  - Collection of sample data
  - Process data
  - Present summary graphically for business decisions.
- Methods: Manual with Excel  
R (statistical language, free).  
Automated for large scale (e.g. google adwords).

# Data analytics examples

- Advertising and marketing on the web.
- Requirements of data:
  - Diversity (around the world).
  - Large amount of sampling (billions).
  - Accurate (remove surveyor biases).
  - Remove spurious data (spam data).
  - Real time processing (same day).
- I will explain details in marketing courses of Prof. Saravan / Sandhya / ...

# https://Finance.google.com

https://www.google.com/finance

casino in A.C.

More market news »

Trends

Popular | Price | Mkt Cap | Vol

Gainers

Cousins Properties Inc	Change 0.12%	Mkt Cap 2.14B
------------------------	-----------------	------------------

Excludes stocks with mkt cap less than \$1B. [Learn more](#)

Sector summary

Sector	Change	% down / up
Energy	-0.38%	
Basic Materials	+0.38%	
Industrials	+0.39%	
Cyclical Cons. Goods ...	-0.08%	
Non-Cyclical Cons. Goods...	-0.03%	
Financials	+0.00%	
Healthcare	+0.18%	
Technology	+0.45%	
Telecommunications Servi...	+0.54%	
Utilities	-0.53%	

IBOVESPA 54,785.93

SET 1,518.01

BIST100 79,364.43

IBEX 10,538.80

WIG 51,085.89

TASI 9,803.29

MERVAL 7,489.30

Currencies

EUR/USD	1.3608	0.0000 (0.00%)
USD/JPY	101.3100	+0.0500 (0.05%)
GBP/USD	1.7116	-0.0002 (-0.01%)
USD/CAD	1.0732	-0.0002 (-0.01%)
USD/HKD	7.7505	+0.0005 (0.01%)
USD/CNY	6.2038	-0.0018 (-0.03%)
AUD/USD	0.9391	-0.0001 (-0.01%)

Bonds

3 Month	0.02%	0.00 (0.00%)
6 Month	0.05%	0.00 (0.00%)
2 Year	0.44%	0.00 (0.00%)
5 Year	1.64%	0.00 (0.00%)
10 Year	2.52%	0.00 (0.00%)
30 Year	3.34%	-0.01 (-0.30%)

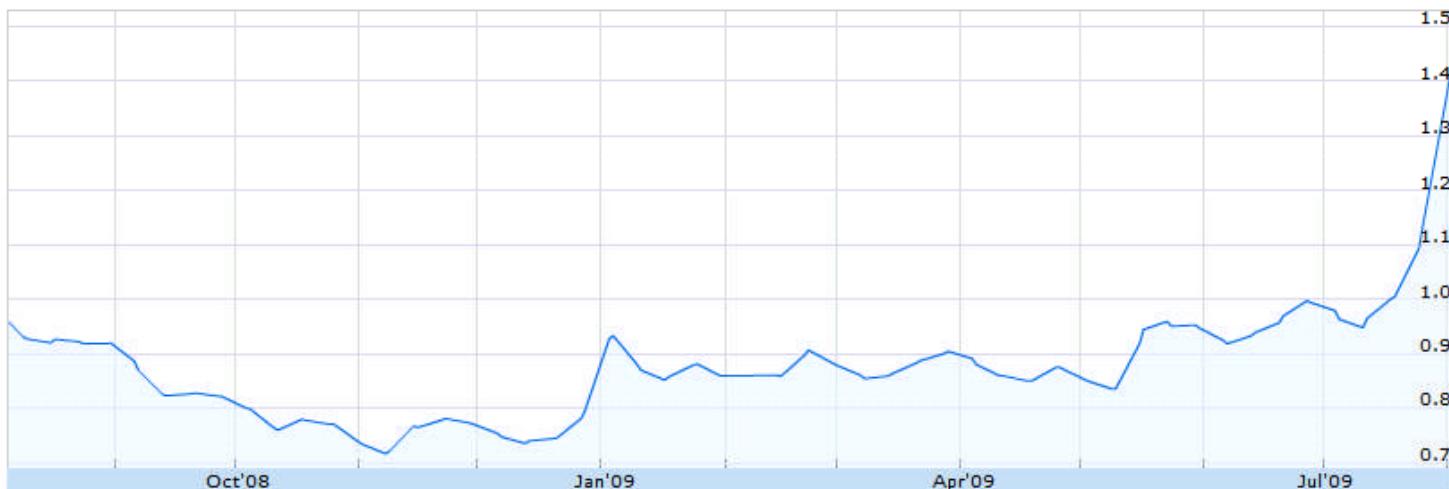
Google Finance Beta available in: Hong Kong - Canada - U.S. - China - U.K.

# <https://finance.google.com>

	World markets	
Dow Jones	16,943.81	
S&P 500	1,967.51	+2.83 (0.14%)
Nasdaq	4,415.49	
Shanghai	2,046.96	
Nikkei 225	15,164.04	
Hang Seng Index	23,233.45	
TSEC	9,495.84	
FTSE 100	6,690.17	
EURO STOXX 50	3,157.05	
CAC 40	4,316.50	
S&P TSX	15,125.50	
S&P/ASX 200	5,486.80	
BSE Sensex	25,024.35	
TA25	1,371.61	
KOSPI	1,988.74	
SMI	8,468.52	
ATX	2,379.29	
IBOVESPA	54,785.93	
SET	1,518.01	
BIST100	79,364.43	
IBEX	10,538.80	
WIG	51,085.89	
TASI	9,803.29	
MERVAL	7,489.30	

# [https://www.google.com/finance/domestic\\_trends](https://www.google.com/finance/domestic_trends)

 *Google Auto Buyers Index*  
User searches related to car buying increased dramatically with the launch of the US Government's Cash for Clunkers program. We see that the Auto Buyers Index jumped to 1.4 at the end of July 2009.



## Better Predicting real-world statistics

We wondered if Google search volumes in a month can help better predict real world statistics well before they are officially tabulated and released.

The data for these indexes are available for download—so you can use it with your own models. If you find interesting patterns and uses, feel free to share with us!

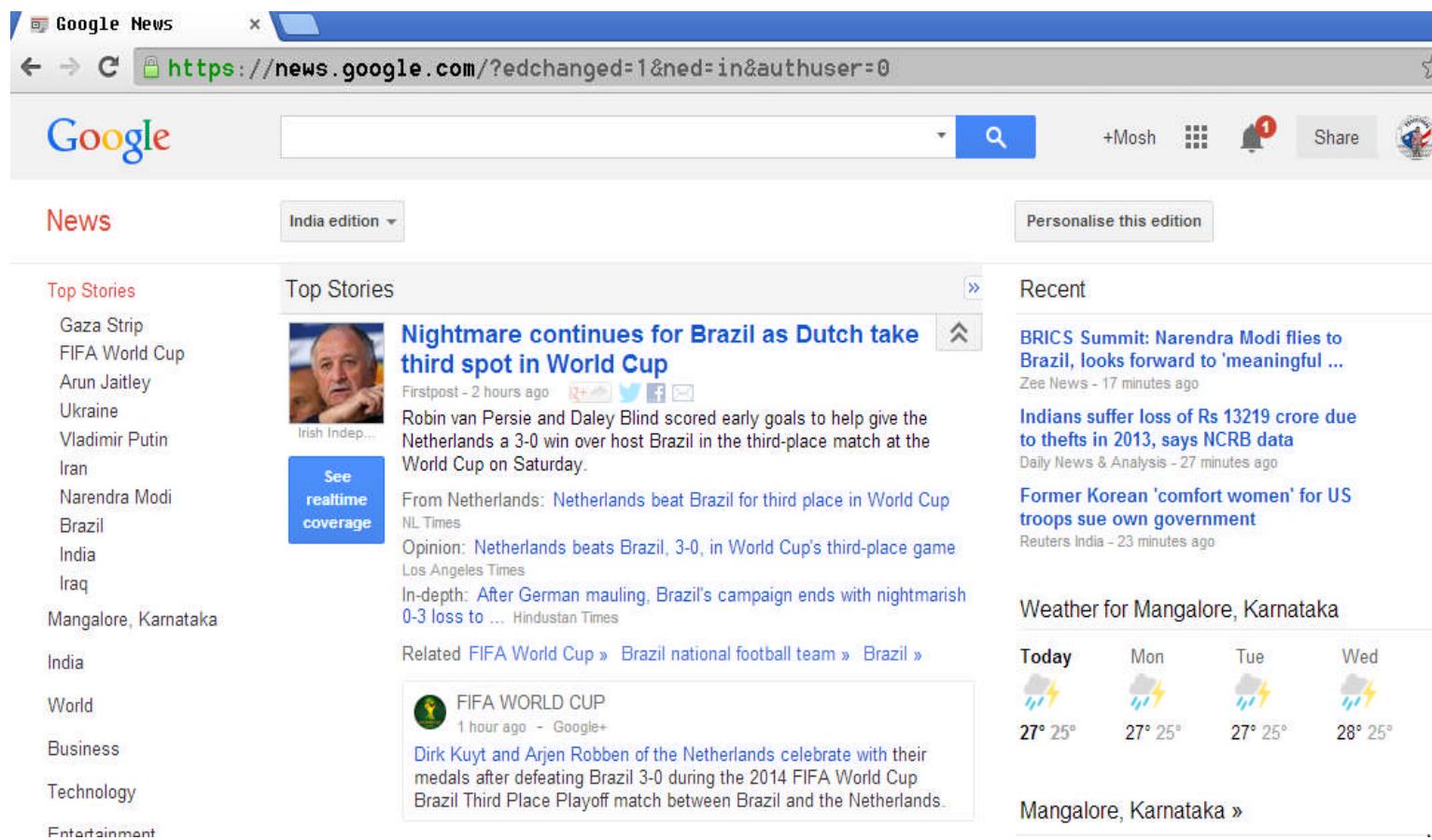
# Graphing stocks

Google Domestic Trends  
for US search traffic.

- Advertising & marketing
- Air travel
- Auto buyers
- Auto financing
- Automotive
- Business & industrial
- Bankruptcy
- Commercial Lending
- Computers & electronics
- Construction
- Credit cards
- Durable goods
- Education**
- Finance & investing
- Financial planning
- Furniture
- Insurance
- Jobs
- Luxury goods
- Mobile & wireless
- Mortgage
- Real estate
- Rental
- Shopping
- Small business

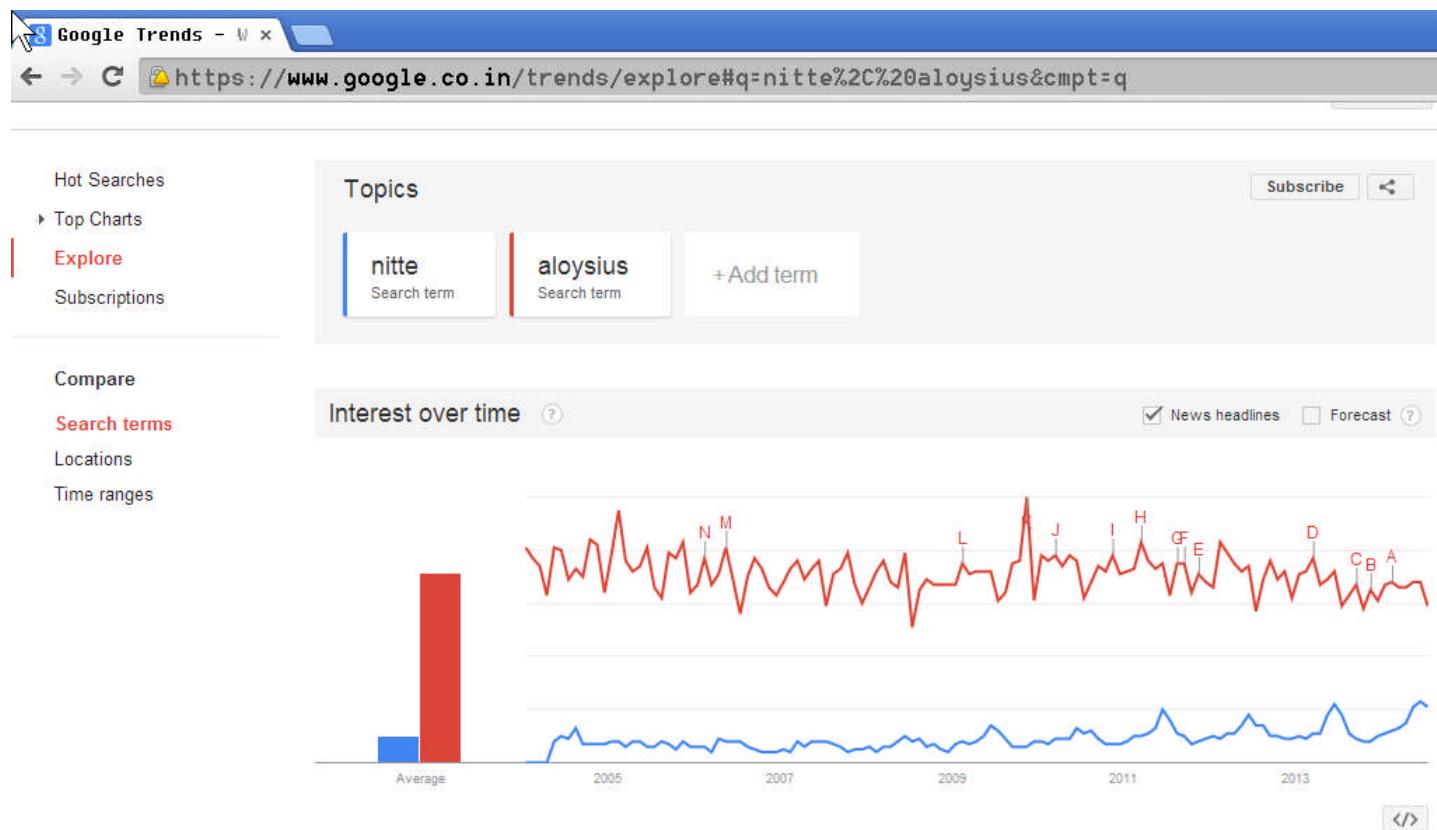


# https://news.google.com

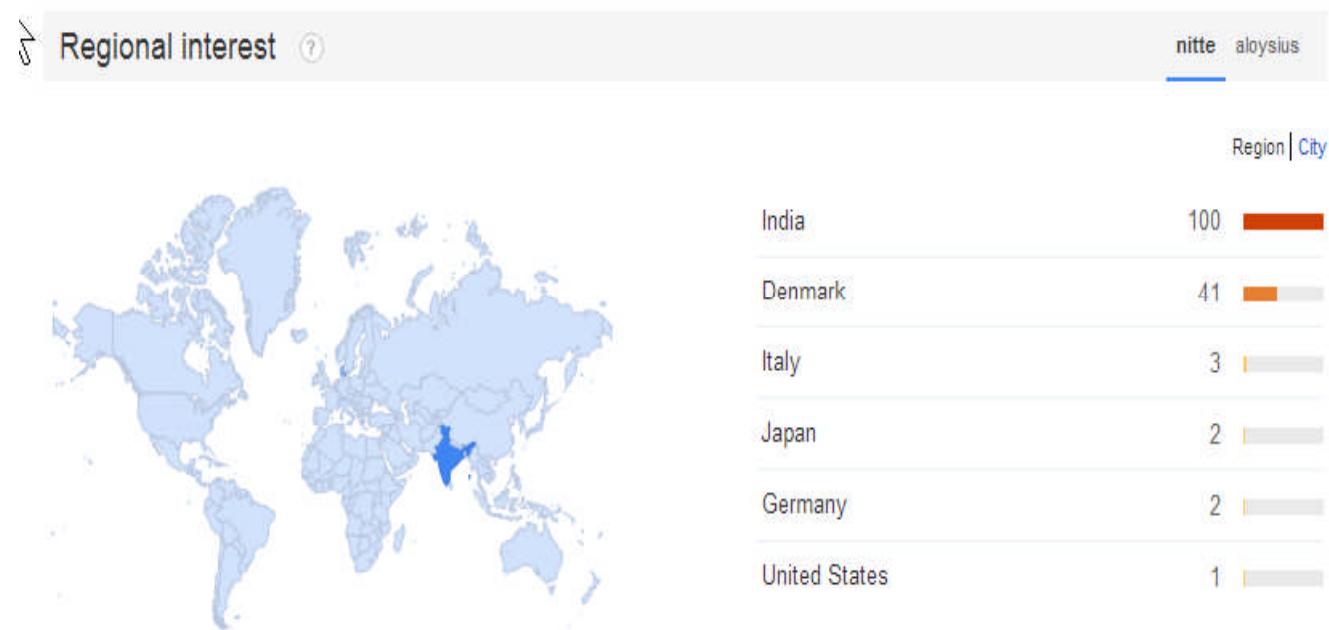


The screenshot shows the Google News homepage at <https://news.google.com/?edchanged=1&ned=in&authuser=0>. The page is in India edition. The main content area features a "Top Stories" section with a large image of a man and the headline "Nightmare continues for Brazil as Dutch take third spot in World Cup". Below this are links to "Robin van Persie and Daley Blind scored early goals to help give the Netherlands a 3-0 win over host Brazil in the third-place match at the World Cup on Saturday." and "From Netherlands: Netherlands beat Brazil for third place in World Cup NL Times". There are also links to "Opinion: Netherlands beats Brazil, 3-0, in World Cup's third-place game Los Angeles Times" and "In-depth: After German mauling, Brazil's campaign ends with nightmarish 0-3 loss to ... Hindustan Times". To the left, there is a sidebar with "Top Stories" links for Gaza Strip, FIFA World Cup, Arun Jaitley, Ukraine, Vladimir Putin, Iran, Narendra Modi, Brazil, India, Iraq, Mangalore, Karnataka, India, World, Business, Technology, and Entertainment. A blue button labeled "See realtime coverage" is visible. On the right, there are sections for "Recent" news (BRICS Summit, Indians suffer loss of Rs 13219 crore due to thefts, Former Korean 'comfort women' for US troops sue own government) and "Weather for Mangalore, Karnataka" (forecast for Today, Mon, Tue, and Wed). The top navigation bar includes a search bar, user profile, and sharing options.

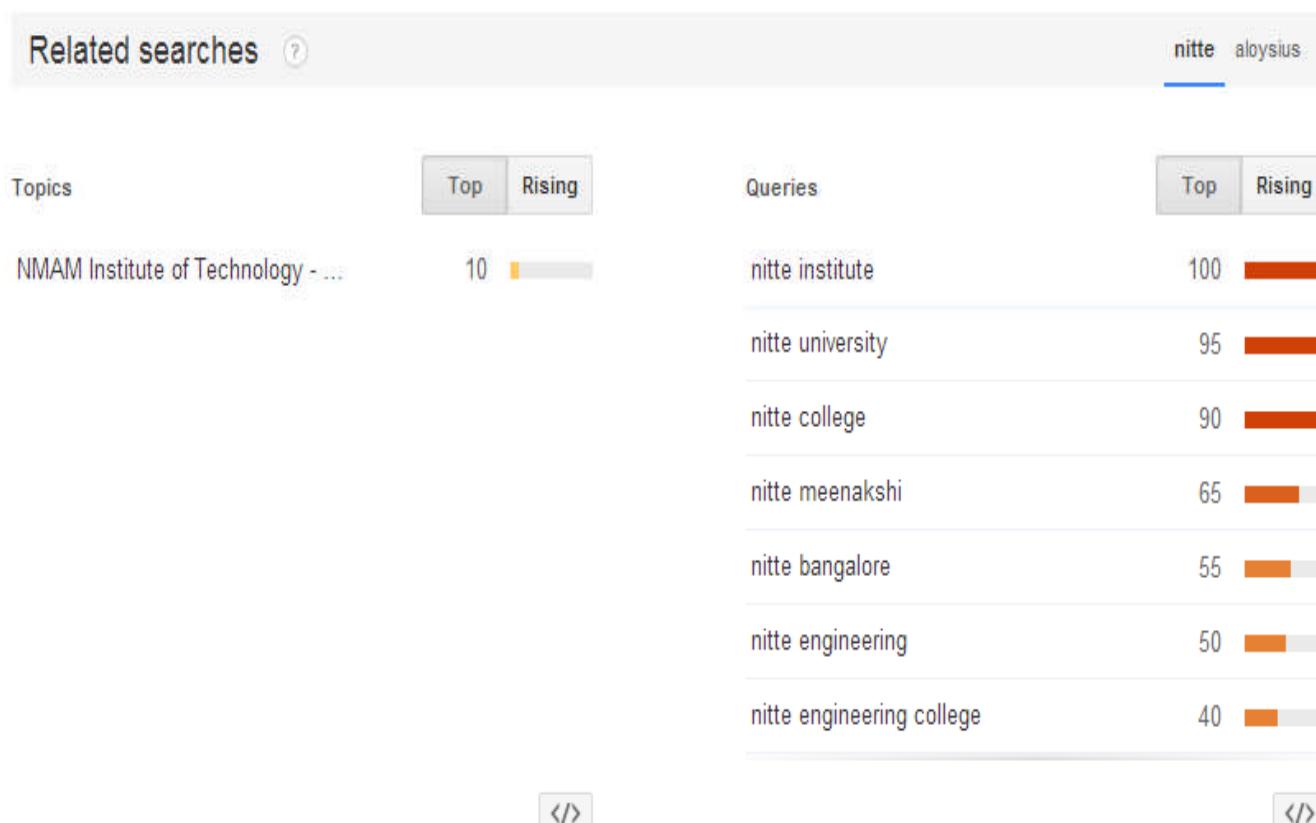
# Marketing surveys: google trends



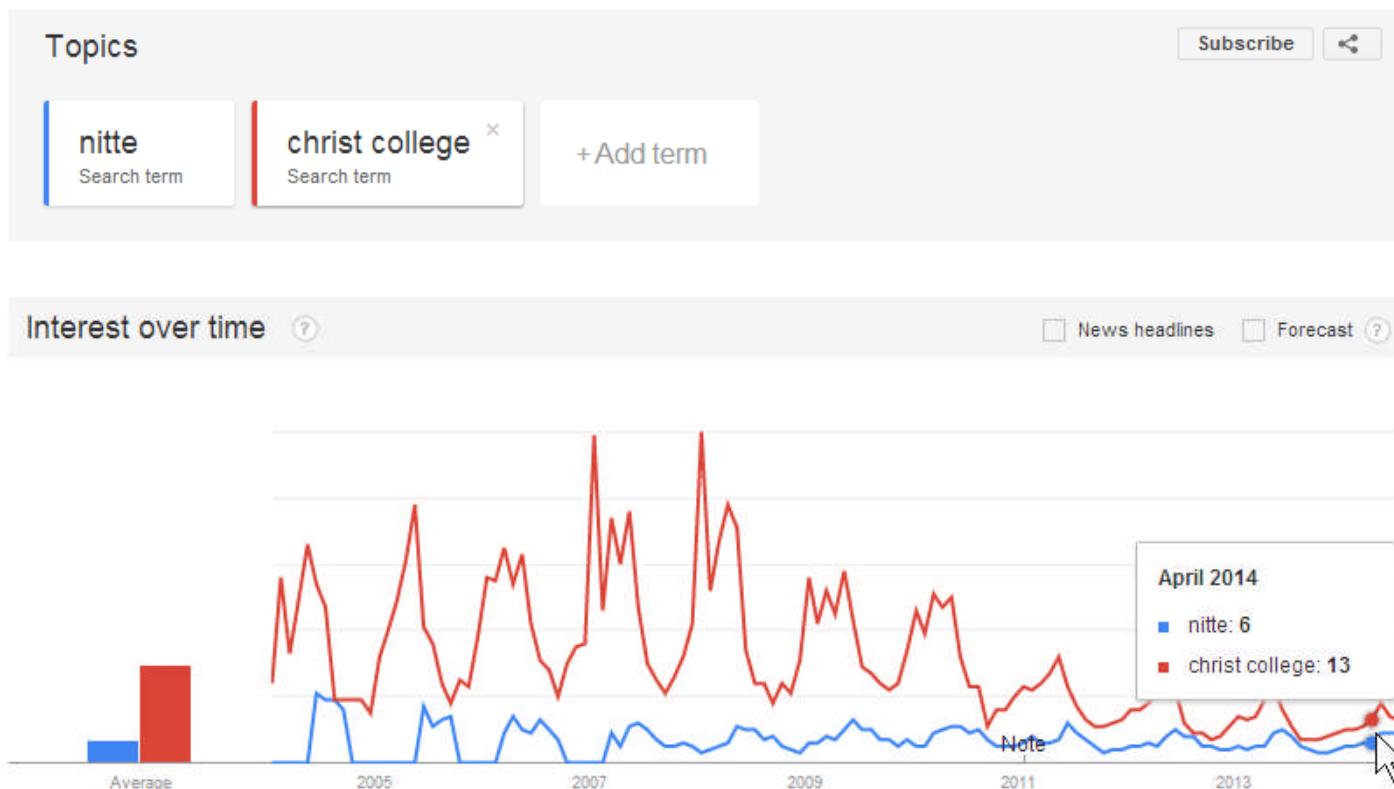
# Local trends



# Related trends



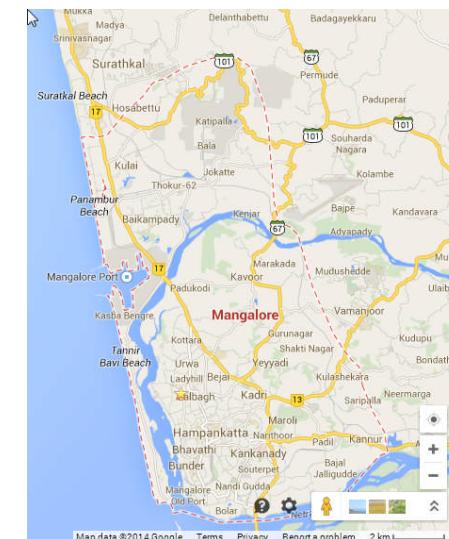
# Comparing



# Back of envelope calculations

In business when looking at any new venture you need to estimate the market segment and the costs, even before doing a market survey.

Exercise:  
Size of Mangalore?  
Population of Mangalore?



# Back of envelope calculations

Solution: Size of Mangalore?

$10 \text{ km} \times 20 \text{ km} = 200 \text{ km square}$

Population of Mangalore?

$10,000 \text{ people in 1 sq km} = 200 \ 0 \ 000 \text{ (2mil)}$

# Estimating and sampling

- Random sampling works very well in practice.

Example: Judge a book (or assignment) by randomly reading a few sentences in the middle pages, rather than reading the back cover or cover picture.

# Exercise

Estimating value of property or business.

Interview question

- How many trees are there in Mangalore?
- Estimate (and explain).

# City information

size of mangalore city

+Mosh Share 1

Web Images News Shopping Videos More Search tools

About 2,010,000 results (0.70 seconds)

**51.14 sq miles (132.4 km<sup>2</sup>)**

Mangalore, Area



Feedback

**Mangalore - Wikipedia, the free encyclopedia**  
[en.wikipedia.org/wiki/Mangalore](http://en.wikipedia.org/wiki/Mangalore) Wikipedia

Jump to [Sister cities](#) - [edit]. Canada Hamilton, Ontario, Canada 1968; Canada Delta, British Columbia, Canada 2010.

[Etymology](#) - [History](#) - [Geography and climate](#) - [Economy](#)

**Mangalore City Corporation - Wikipedia, the free encyclopedia**  
[en.wikipedia.org/wiki/Mangalore\\_City\\_Corporation](http://en.wikipedia.org/wiki/Mangalore_City_Corporation) Wikipedia

The Mangalore City Corporation is the municipal corporation responsible for looking after the city administration of the city of Mangalore. It consists of a ...

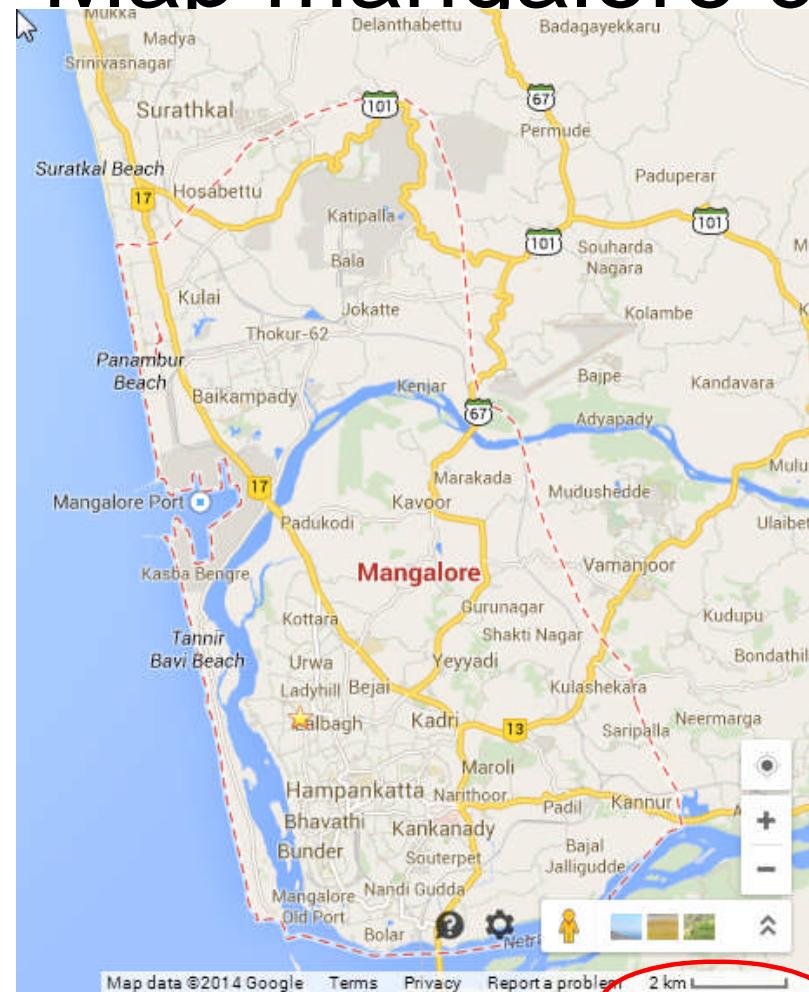


**Mangalore**  
City in India

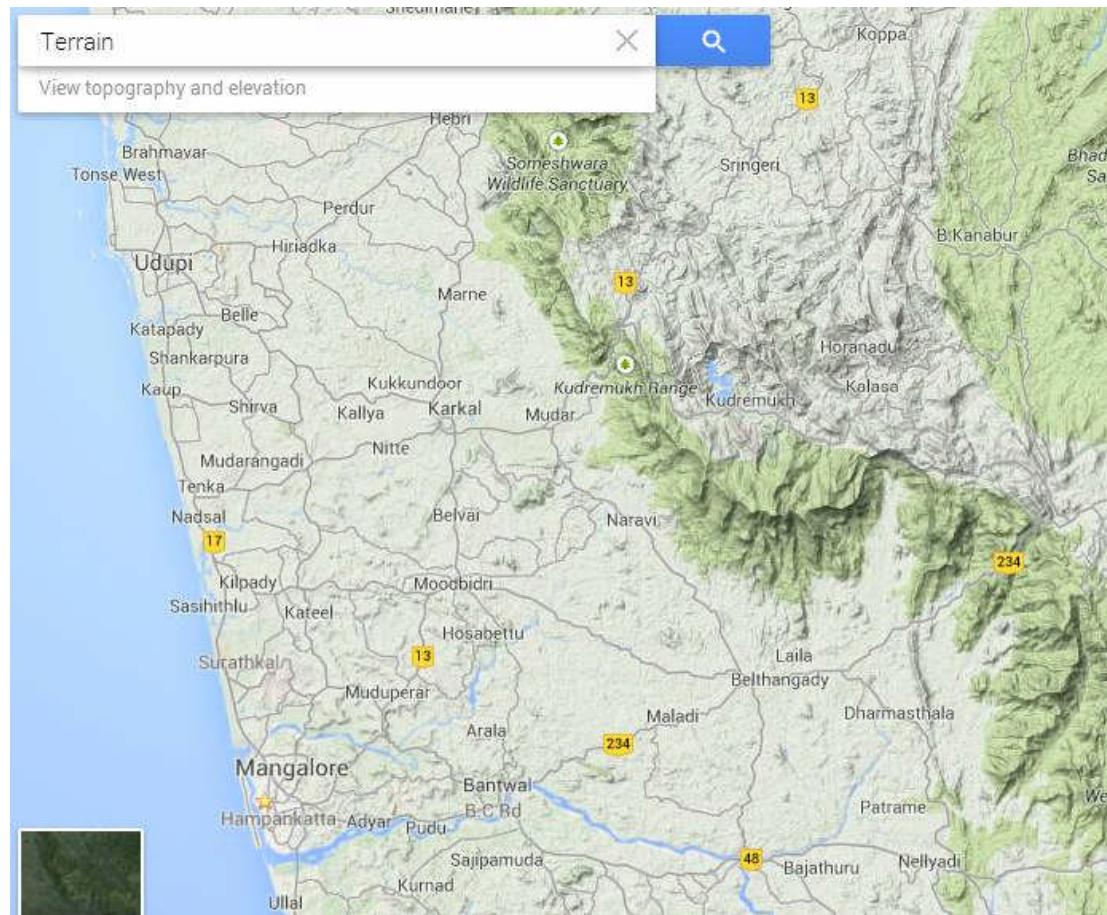
Mangalore, Karnataka, India "Kudla" in Tulu language  
Kodiyāl in Konkani, Maikāla in Beary bashe, or  
Mangalapuram in Malayalam is the chief port city of the  
Indian state of Karnataka. [Wikipedia](#)

**Area:** 51.14 sq miles (132.4 km<sup>2</sup>)  
**Population:** 399,565 (2001) UNdata  
**Local time:** Sunday 8:40 AM

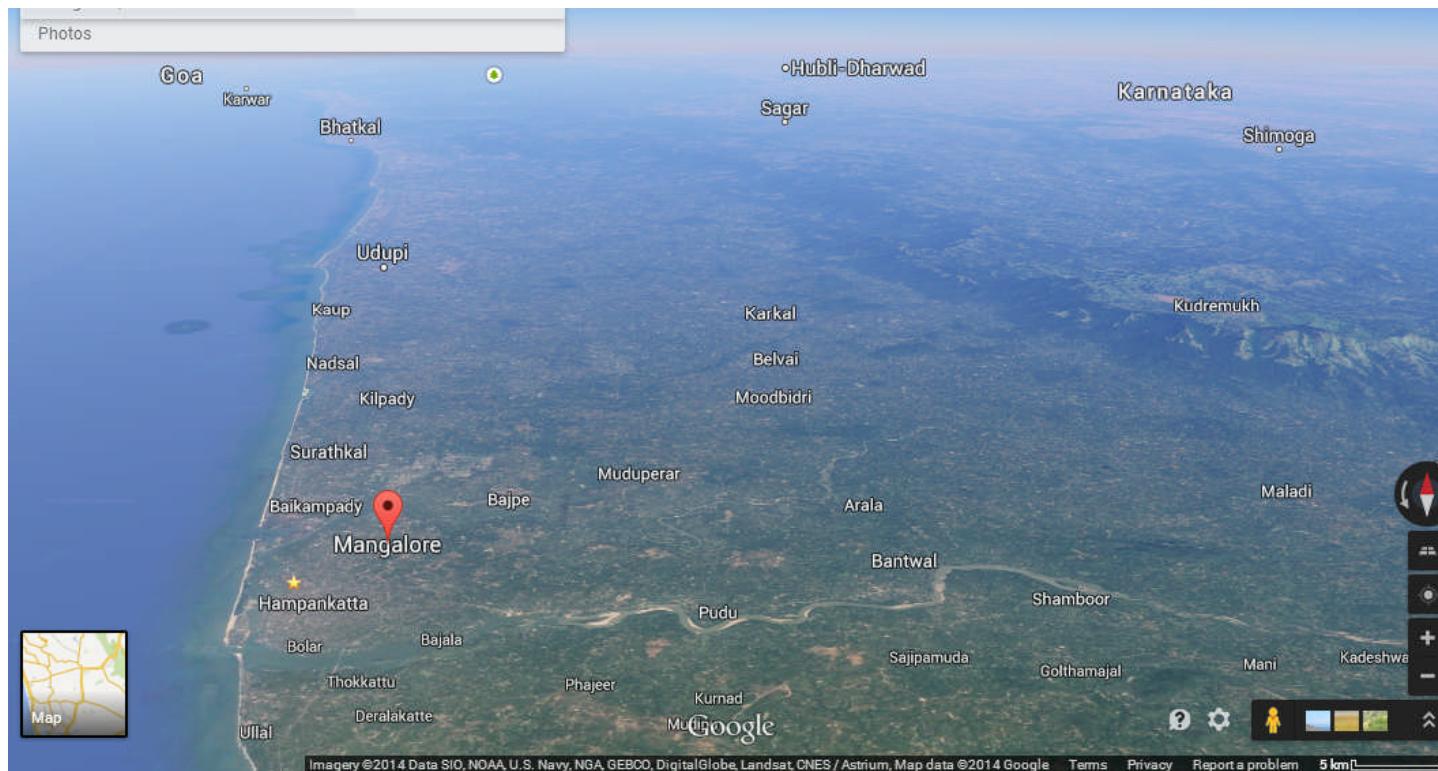
# Map mangalore city



# Terrain Map



# Google Earth



# Calculator

132 square km in sq meters

Web Maps Images News More ▾ Search tools

About 39,900 results (0.76 seconds)

Area

132 = 132000000

Square km Square meter

More info

The image shows a search results page from a web browser. The search query is "132 square km in sq meters". Below the search bar, there are navigation links: Web (highlighted in red), Maps, Images, News, More ▾, and Search tools. The search results section indicates "About 39,900 results (0.76 seconds)". Below this, a conversion calculator is displayed. It has two input fields, both containing "132", separated by an equals sign. The left field is labeled "Square km" and the right field is labeled "Square meter". Above the input fields, the word "Area" is displayed. At the bottom right of the calculator, there is a link "More info".

1 tree/sq meter and assume 30% trees  
= How many crore trees?

132000000 \* 30%

Web Images Maps Videos News More ▾ Search tools

About 96,700 results (0.43 seconds)

Tip: Search for English results only. You can specify your search language in Preferences

132 000 000 \* 30% =

39600000

Rad		x!	(	)	%	AC
Inv	sin	ln	7	8	9	÷
π	cos	log	4	5	6	×
e	tan	√	1	2	3	-
Ans	EXP	x <sup>y</sup>	0	.	=	+

More info

## Exercise (in your book)

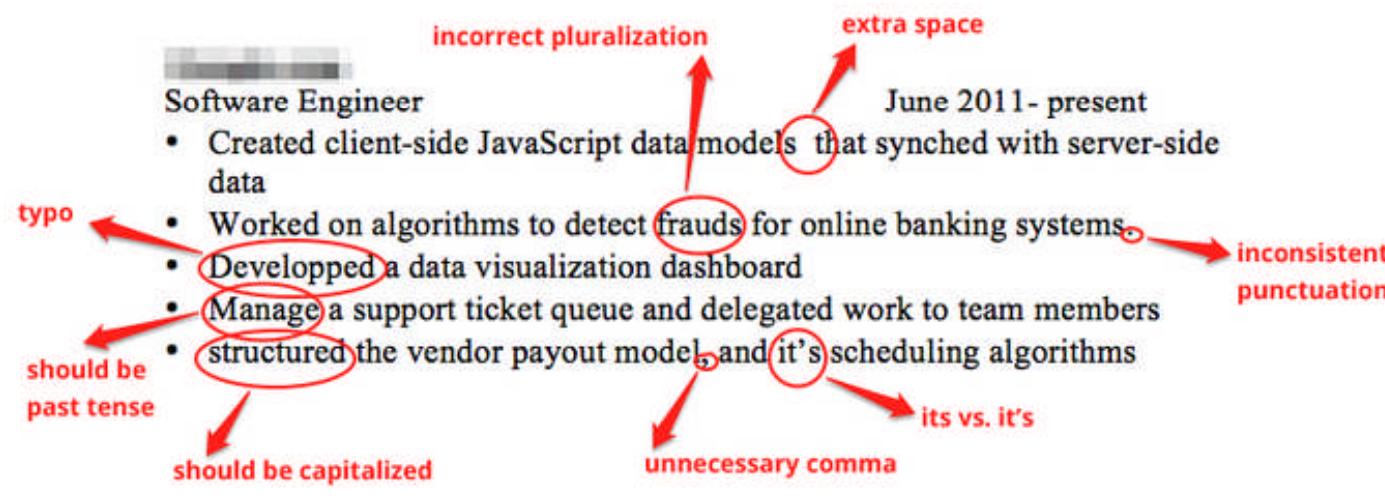
- 1 Crore = ? Lakhs
- 1 crore = ? Millions
- 1 billion = ? Crores
- 1 million = ? thousands
- 1 Lakh = ? thousands.

# Financial Number system

- 1 Lakh = 5 zeroes
- 1 Crore = 7 zeroes
- 1 million = 6 zeroes
- 1 billion = 9 zeroes

# Resume

# Common mistakes in resume



# Resume

- Short sentences to the point.
- Don't write long paragraphs about your project and internal project names.
- Spell check
- Grammar check
- Dates when appropriate.
  - Internship with NGO, 5/2010-7/2010.
- Plain txt and pdf file (no ms-word or ppt).
- Contact email(s), phone numbers, local address.  
E.g. phone: +91(824)123-456

# Resume

- Action oriented, start sentence with action.
  - I arranged a water tanker for the school.
- Result oriented, highlight what you solved
  - **Solved** water problem by arranging tanker.
- Quantitative, quantify your work
  - Wrote **1000** lines of C++.
  - Saved **2000\$** by reusing old hard drives.

# Resume

- Be **honest**, do not write something you cannot explain when asked to elaborate. It is not ok to say you forgot (within 3 years of college).
- E.g. Managed NITTE utsav
  - Q. What kind of bank account did you use?
  - Q. What accounting software did you use, and how much was the balance?
- E.g. **Expert** in Accounting
  - Q. How would you investigate a mismatch in a balance sheet.

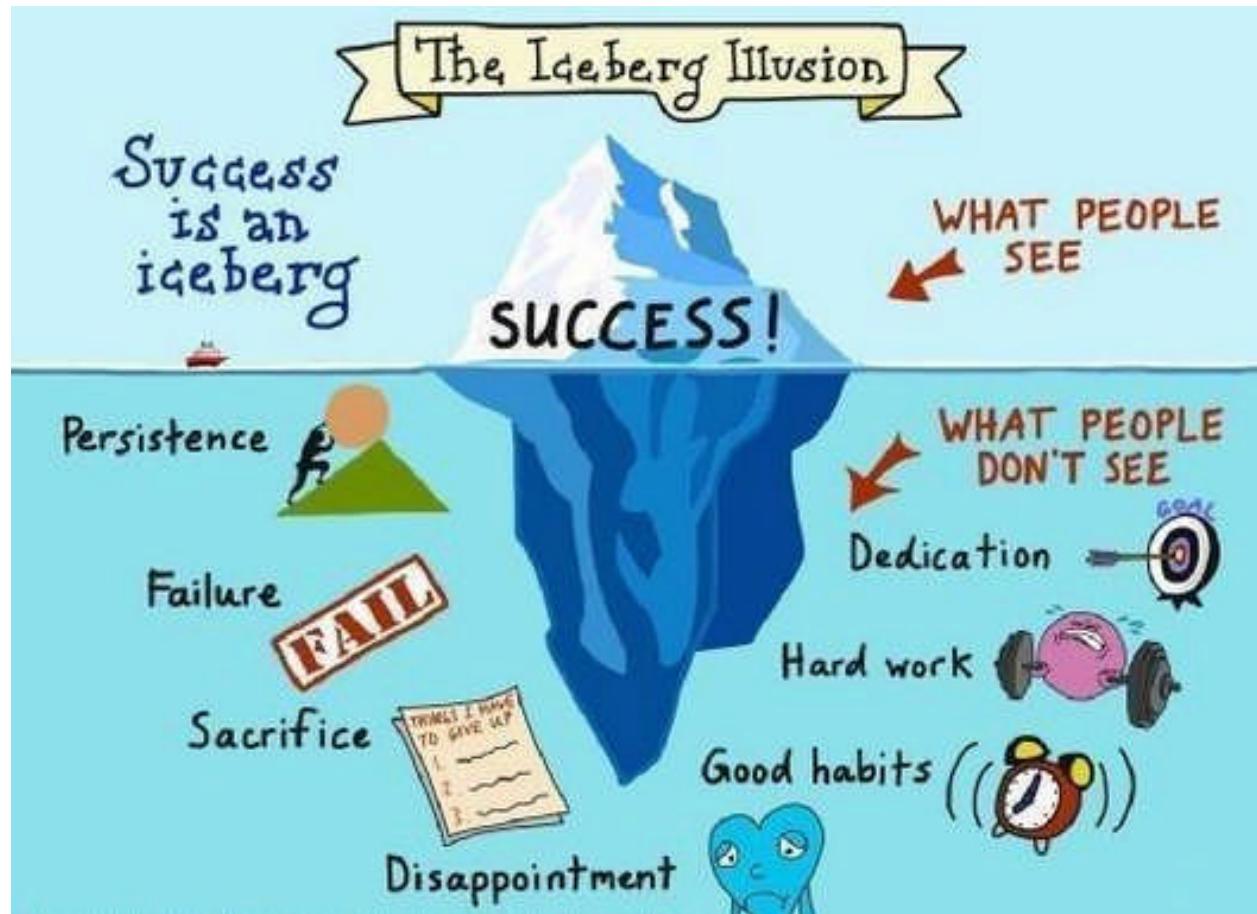
# Resume

- Make it interesting, add few projects you did outside of class work, e.g. visited orphanage, wrote a blog on local birds.
- References – ask references in advance, be prepared.

# Not for resume

- Race
- Gender
- Religion
- Citizenship, unless for local jobs
- Previous compensations
- Family history
- Transcripts
- Photo

# No easy path to success



# Internet Reputation

- Google – search your name + college on google, to make your webpage comes up on first page.
- Create your
  - google.com/profiles
  - linkedin.com
  - blogger.com
  - sites.google.com
- Check other sites that refer to your name.

# Social network privacy

- Facebook.com – make sure your wall is clean.
- Use a different **nick-name** for social networking, only your friends should be able to find you on facebook.
- Set privacy settings of your photos and postings to **friends** or **friend-of-friends**.
- Don't allow your facebook profile to be visible outside of facebook (to google search).
- Don't upload your high-res photos, certificates or passport or id card details online.

# Social network privacy

- Don't accept unknown people as friends (or those with fake photos).
- Don't post in "Open groups" (visible to public), only write in "closed groups" (members you know and good admin).
- Don't allow apps to access your account.

# Social network privacy

- Don't type your password into unknown websites.
- Don't reply to email (or phone or SMS) from unknown people asking for any information.
- For phone, ask their details and say you will call back after background check.

## Do your homework on the company

- Company size, products, years, employees, offices.
- Earnings, stock performance
- Check what others say about them and the products, use google.com, read postings on forums

# Interview



# Dressing



# Dressing



# Your brand

- Create an College Tie/Pin/Blazer.
- *US President Barack Obama wears his Ivy League badge on his shirt sleeves and business suits. And it has been no different during his ongoing India trip.*  
The conservatism of the ensemble was in keeping with the tradition of his Harvard University background. The president studied law there.  
Harvard men are known for their smart power suits that combine slim silhouettes, straight lines and slim fits.

# Going for an interview

- Sleep well before the interview.
- Don't eat heavy food the day before, eat curd rice / dal / sambar / veg.
- Don't spend time on phone, just chill out.
- Do not try to study too much on last day.
- Deep breath to reduce stress – meditate and be calm.
- Dress well and formally, not flashy.
- Call up and inform, if you are sick or delayed.

## Do's

- Discuss technical issues related to job
- Discuss global issues related to development
- Ask questions about the job, work culture.
- Company future.
- Your future in the company
- Interesting Technology, Finance questions.
- Be courteous and listen carefully
- Ask about who you will work with, the position and duties required of you.
- Ask about compensation

# Body Language



**Non-Verbal Interviewing Tips**

**Face:**

- Smile
- Make Eye contact

**Body:**

- When you sit down, pull chair up to the table
- Sit up straight
- Lean forward slightly (shows interest!)
- Don't Fidget

**Hands:**

- Do not touch your face
- Gesturing occasionally
- Firm hand shake
- Avoid nervous habits, like picking nails

# Don't

- Discuss politics.
- Religion, Race, Gender, bad Jokes.
- Personal opinions.
- Previous compensation.
- Over-eat during the interview lunch

# Technical questions

- **Think loudly** - solve one step at a time.
- Write on board.
- Understand the question.
- Ask and clarify
- List your assumptions
- List alternatives.
- Don't panic if you didn't solve one problem.

# 1. What are they looking for?

- Communication skills?
- Friendly to work with.
- Problem finder and specifier, not just solver.
- Self motivated.
- Interested in work.
- Interesting to work with.

## 2. What are they looking for?

- Competent in work
- Wider vision, not just academic.
- Well read.
- Drive solutions to completion.

# What will they avoid

- Bored
- Non communicative, answers only to the point.
- Excessive bragging about past.
- Argumentative.
- No dreams, no drive, unmotivated.

## You are also interviewing them

- Do you like the company, so take the first job – ask questions, do they listen to you – if not, maybe it is not your type of company.
- Make sure you like their **questions**, food, style, dressing
  - if not, it is sign their culture is not right for you,
  - Maybe they will bore you soon.

# Sample Questions

- Why do you want to work here?
- Where else did you apply?  
[mention you are talking to other companies, drop names but not details, so they can't make you wait for long].
- What are your hobbies?  
Answers to avoid: socializing, partying, watching TV.  
Interesting answers: ???

# Sample questions

- What newspapers do you read?
- Which websites do you read?
- Which books have you read?
- Which textbooks did you like?
- What happened in the news recently, and what do you think of it?

# Career questions

- What do you see yourself doing in 5 years?
- What are your dreams in career?
- What difficult problem have you solved before?
- What achievement are you proud of?
- Who are your heroes and why?
- What else you plan to study in the future?
- How will you help the community?
- What was your project?

Homework: write your answers in your private diary, and check often that you are working on achieving your dreams.

## Sample technical questions

- How would you multiple two large numbers?
- Is the internet safe for children?
- What is e-signature?
- How many cars are there in this city?

# Practice

- Mock interviews
- Apply, go for real interviews and meet people even if you don't want a job, you never know where the opportunities come from. You will learn something and make good friends in other companies.

# Preparation

Read:

- Google for information all the time.
- news.google.com – current events.
- Wikipedia.org - read, contribute.
- Read books in spare time.
- No TV, bollywood, hollywood movies.
- Make good friends, dump negative friends who are not serious about life. They will not stand by you in times of need anyways.

# GD Practice

- Read few pages from a book loudly alone.
- Take an easy book like “Little Prince” or some Drama.
- Record and listen to your voice.
- Be confident about yourself.
- Say something different from what you read, so everyone in GD will remember you.

# How to improve your job chances?

- Read the newspaper daily.
- Read news.google.com daily.
- Don't watch TV, Bollywood, time waste chats with friends.
- Read your textbooks, be good at Logical thinking, basic Math, English, Confidence.
- Search on google and read wikipedia on topics or words you don't know.

# How to improve your job chances?

- Practice writing your thoughts daily, write about including problems, solutions, choices. Try writing short stories.
- Learn to talk to new people, communicate without fear.
- Have something interesting to talk about – not gossip/tv/movies/yourself.
- Be a good listener, but don't get caught up with bad friends who pull you down with negative thoughts. Many of your friends will vanish when you don't have a job.

# How to improve your job chances?

- Have faith in yourself and your work, despite what others may say about you.
- Have a look at these simple self-improvement books: “How to win friends” by Dale Carnegie, Napolean Hill, Shiva Khera, “Who moved my Cheese” and many more in bookstores, just ask them or me.

# Summary

## Top Ten Most common mistakes made at a job interview

**10** Over-Explaining Why You Lost Your Last Job

Conveying That You're Not Over It **9**

**8** Lacking Humor, Warmth, or Personality

Not Showing Enough Interest or Enthusiasm **7**

**6** Inadequate Research About a Potential Employer

Concentrating Too Much on What You Want **5**

**4** Trying to Be All Things to All People

"Winging" the Interview **3**

**2** Failing to Set Yourself Apart From Other Candidates

**Failing to Ask For the Job 1**

## Most common tips about interviewing

**4** Learn about the organization

Have a specific job in mind **3**

**2** Review your qualifications for the job

Be ready to briefly describe your experience **1**

## 5 questions most likely to be asked

Tell me about your experience at **5**

**4** Why do you want to work for us?

What do you know about our company? **3**

**2** Why did you leave your last job?

# Interviewing: Questions and Mistakes to avoid



7/2014

# Talking about yourself

---



# Exercise: Talking about yourself

MANAGER: What do you do besides studies and work?

Write a para about yourself (your passions without bragging) in your book (5 minutes), then tell it to your neighbor (3+3 minutes).

Neighbor: Just listen, don't say/ask anything.

# Talking about yourself

- Talk about what you like and want to do.
- Doesn't mean about your personal life, but your passion about life.
- Talk about what you like and want to do



# Talking about yourself

- Example: active hobbies (why)
- service (who you helped),
- clubs (what you did/do),
- reading (what you read and learnt, that interviewer doesn't know),
- sports (what you want to excel in),
- travels, nature, cooking,
- art, art movies.



# Current events: read <http://news.google.com>

Standard News | Text Version

Web Images Groups News Froogle Local more » Advanced Site Search

Search Your Life Search the Web

Google MyNews BETA

Search and browse your life. Updated continuously.

> Top Stories

**Paul's Neighborhood**

**Paul's Family**

**Paul's Friends**

**Paul's Office**

**Paul's Dates**

**Chicago**

**Paul's Health**

News Alerts

About Paul's Google News

Top Stories U.S. Go Auto-generated 10 Jul at 12:20 GMT Auto-generated 11 minutes ago

**Paul comes late to work, again**  
Chicago - 2 hours ago  
By Googlebot, Chicago, Ill. - Paul yesterday arrived 5 minutes too late because of a traffic accident near-by his house. The boss was "not amused" this happened twice this month. ... Why is Paul often late? Googlebot Analysis What's in a minute: Paul late Googlebot Commentary all 4,373 related >

**Paul met his ex in the supermarket**  
MSN Spiderbots - Jul 5, 2005  
Chicago - Paul almost forgot about his ex-girlfriend when he accidentally ran into her this noon in the supermarket. But was it an accident really? Or ...

**Paul's Neighborhood »** edit

**Paul's favorite singer in town: Paul "excited"**  
Chicago Bot Tribune - 1 hour ago  
By CHICAGO - Paul's neighbors informed Paul yesterday that his favorite singer Johnny the Rocket is giving a show in Chicago next Wednesday. Paul's girlfriend Beth will probably join, but isn't too ...  
Johnny Rocket gives surprise concert in Chicago Chicago Globe Paul busy next Wednesday Chicago Bot TV

**Paul's Office »** edit

**Anonymous source says Paul killed a fly last week in the office**  
Chicago Automated Gazette - 1 hour ago  
Last Weekend, Bot Times reporter 1029A revealed what could go into Paul's history as a minor scandal. Paul, who always told his girlfriend he "couldn't hurt a fly", last week ...  
Paul animal cruelty case reviewed Telebot.com  
Mothid reaction results in 1 dead fly Webbot Telebot

Chicago Surveillance Camera

Welcome Paul! New

New chairs at Paul's office due to next week  
Googlebot - all 61 related >

Paul's girlfriend Beth tries to stop smoking  
Yahoobot - all 887 related >

"Nothing good on TV today", Paul said  
AutomatedNewsTribune.com - all 248 related >

Paul's ex-teacher dies peacefully at age 89  
Chicago Bot Chronicle - all 94 related >

Paul eating out Friday  
Chicago Chronicle - all 219 related >

In The News

Paul's Ex Paul's car  
Paul's teacher Johnny Rocket  
Paul's ex-boss Beth  
Frank Paul's favorite channel  
Paul's boss Paul's basketball team



# Negative red flags

- Passive hobbies are signs of lazy bums:  
e.g. Watching TV, eating out, listening to music, hanging out with friends, shopping, bollywood, Hollywood, celebrities.



# Exercise: Driven to the future

MANAGER: Where do you see yourself in five years?

Write a para in your book (5 minutes),  
then tell it to your neighbor (3+3 minutes).

Neighbor: Just listen, don't say/ask anything.

# Exercise: Will you change the world?

MANAGER: What would you do if we gave you a budget of Rs 50,000 to help the community?

Write a para in your book (5 minutes),  
then tell it to your neighbor (3+3 minutes).

Neighbor: Just listen, don't say/ask anything.

# What are they looking for?

- Good academic record.
- Willing to learn on job, self learner.
- Good English and communication skills.  
-- from Google India recruiter.

# What are they looking for?

Passionate about what they do.

Self driven.

Good communicator.

Good at problem solving.

Good personality (culture fit).

-- from Google US recruiter.

# What are they looking for?

Passionate.

Good communicator.

Good at problem solving.

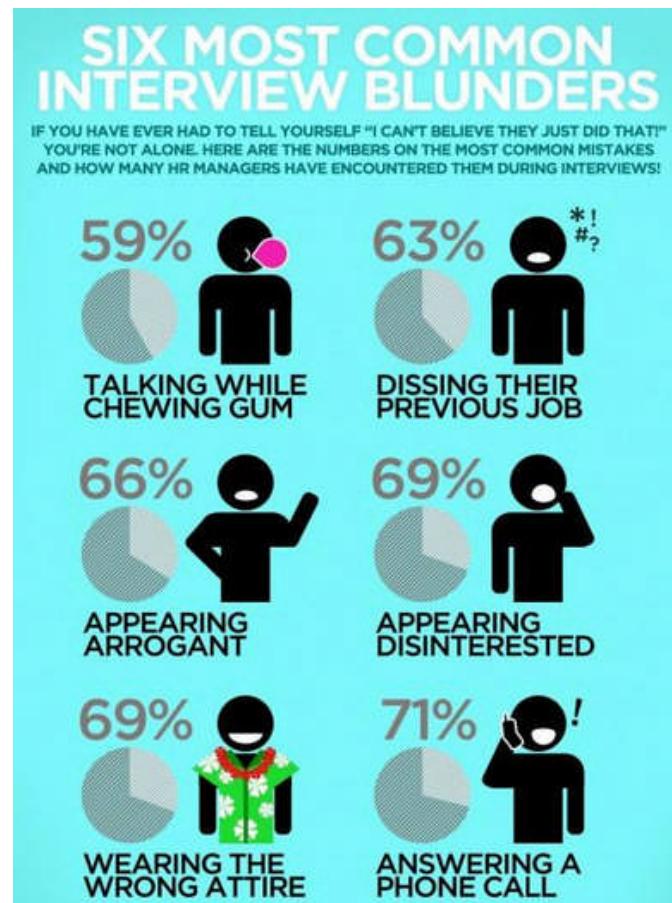
Stamina to work hard.

-- from Microsoft US recruiter.

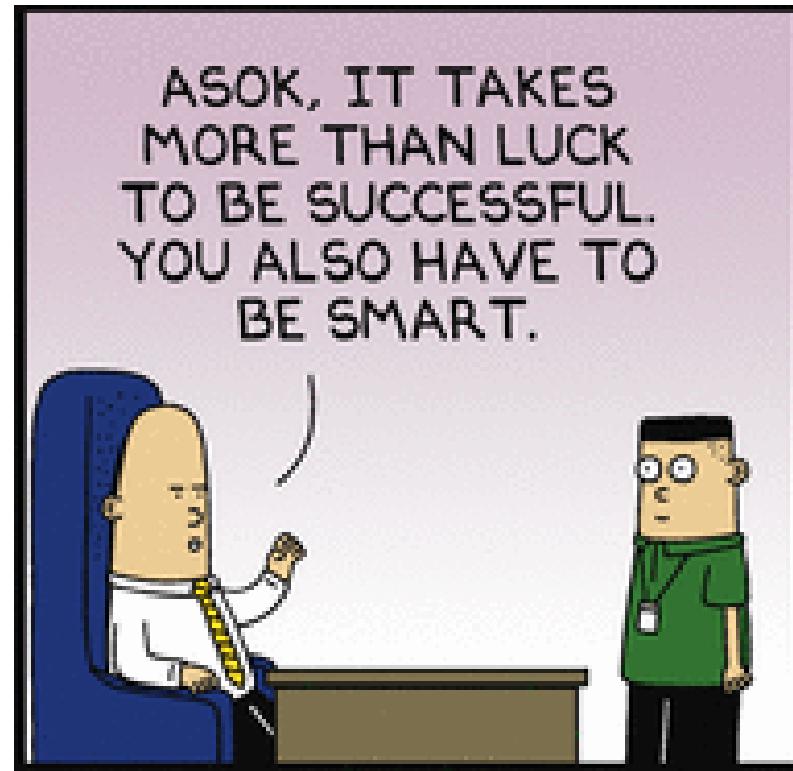
# Body Language

- Crossed hands
- Looking at the watch.

# Don't



# 5 Interviewing Mistakes by Sandeep Bastodkar



Dilbert.com DilbertCartoonist@gmail.com

# MISTAKE #1: Neglecting the Basics

- You've got to go to a job interview prepared. If your first question for an HR person or hiring manager is "**What does your company do?**" you can bet that the interviewer is drawing a big red X through **your name** in his mind, they are too polite to tell you that.

# Know the company beforehand

- You have to know what the company does and for whom, where its various locations are and who its competitors are. You have to know what's new in the organization and what people are saying about them.
- Make a list of critical pre-interview questions, search for it on google.

# Pre-interview research

- The goal of your pre-interview research is not to show that you're a good little student and a get a gold star, but to understand the company's business situation.
- That's for your own benefit, and your knowledge will help you compose thoughtful interview questions to ask your interviewer, too.

## MISTAKE #2: Showing Up Without Questions

- "Is there a bus that runs by here?" is a perfectly fine question for a job-seeker to ask an interviewer if the job-seeker is 18 years old or younger.
- Once we hit adulthood, we're expected to develop higher-altitude questions about the role, the company's situation in its marketplace and the hiring manager's priorities.

## MISTAKE #3: Answering and Going Silent

When we have in mind that a job interview is like an oral exam, we answer a question and then clam up and wait for the next one. That's exam behavior.

That's not how humans converse, and you're not going to start an intellectually-stimulating conversation by following the boring, standard script.

- If you interview in the standard sheepie way, the manager will forget your conversation two minutes after your tush disappears through the revolving door.

## MISTAKE #4: Leaving Without Learning

Notice how I keep talking about getting the manager's brain and your own brain working? To do that, you've got to listen carefully to everything your interviewer says, get off the script and react appropriately.

You've got to let the conversation unfold, and that means keeping the conversation human instead of retreating to the boring and robotic standard interview script.

Let's compare two answers to the question "What do you know about FrammelSoft?"

MANAGER: Tell me what you know about FrammelSoft.

CANDIDATE: I'm sorry that I'm not familiar with that software, but I'm a quick learner.

This is a classic interview mishap: You're an experienced Accounts Payable person and you've never heard of this piece of software, yet you apologize for not knowing it?

# Don't be sorry

You have nothing to apologize for. Let's try it again, this time staying human and pushing for some learning on both sides of the conversation.

MANAGER: Tell me what you know about FrammelSoft.

CANDIDATE: Is that an Accounts Payable application?

MANAGER: Not specifically - it's a kind of mid-range ERP, but there's an Accounts Payable piece. We've been using it since before I got here.

CANDIDATE: How does it fit into the A/P pipeline specifically?

## Don't know? Ask and Learn

- MANAGER: Well, we enter the vendors into FrammelSoft and then it creates vendor reports used by Purchasing. It's kind of ancillary to A/P but it's a tricky system and I was wondering if you'd used it.

CANDIDATE: I haven't heard of it, but it makes me curious, because I thought I read in the job ad that you use SAP.

# Suggest ideas

MANAGER: We do use SAP - this Frammelsoft program is a legacy thing that is actually kind of a pain in the neck.

CANDIDATE: Would it be worth exploring a way to get out of the dependence on FrammelSoft and get that functionality from SAP, which already cost your company a bundle?

## Tell a story

MANAGER: That would be heavenly, but our Purchasing guys are completely committed to FrammelSoft.

CANDIDATE: It makes me think that if I were the person you hired for this job, the Purchasing folks would be a high priority for me -- getting to know them and then understanding what they get out of FrammelSoft that they can't get from SAP.

# You maybe selected!

MANAGER: I have to think our SAP Account Manager would be your ally in that.

The hiring manager is mentally imagining you in the job, already!



# Confidence in yourself

On a job interview, don't give a harmless little answer and be quiet.

Listen, learn and respond! You'd do that naturally if you weren't experiencing interview jitters.

You can lessen the jitter factor by reminding yourself that not everyone is worthy of your gifts. Only the people who get you, deserve you!

# MISTAKE #5: Groveling

Groveling means cowering and begging. It means watching the interviewer's face to see how he or she reacts to every word you utter and every non-verbal signal you send. It means shutting down your true personality in order to be pleasing to the interviewer.

# Don't fall on your knees

You don't go on dates to please people, do you? You go on dates to figure out whether you and another person have enough chemistry to continue the conversation. A job interview works the same way!

## Don't worship

As long as you believe that an employer has something wonderful and precious that you desperately need -- that is, a job -- and that you are nothing and they are godlike, you are sunk. The only kind of people you'll bring in then will be fearful managers who are sure to undervalue and abuse you.

## ‘Sir’ is a British title.

When you know in your heart and your gut that you bring to the table something just as valuable as a paycheck and maybe much more -- your tremendous experience, intellect and instinct -- you'll carry yourself differently.

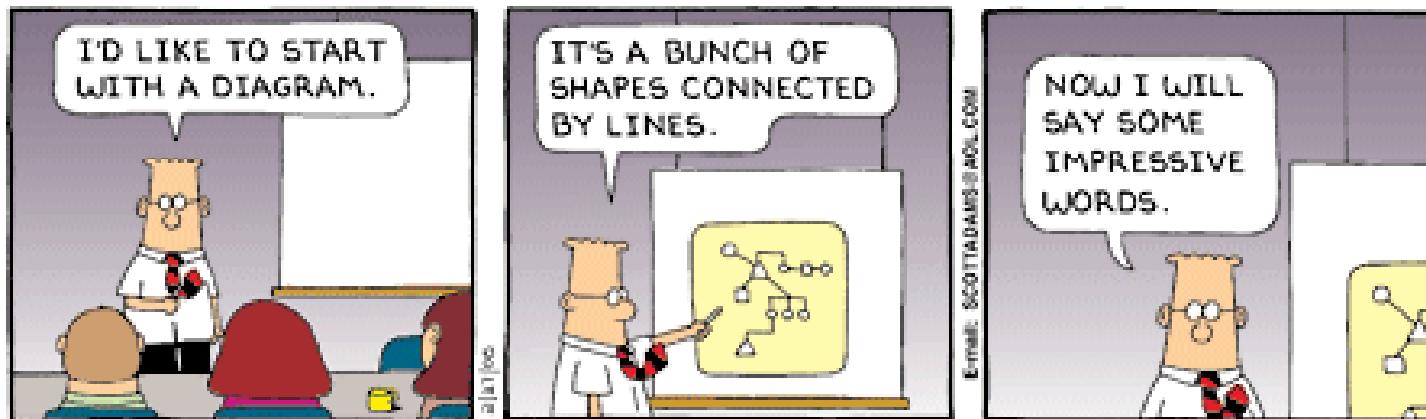
You won't trip over your words in an effort to please His Majesty or Her Highness or Sir, because you'll see yourself and the interviewer as equals on a level playing field.

# Culture Match

- If the energy is right, you'll have a new job and they'll have an awesome new employee in a few weeks. If the energy is wrong, your mojo won't even flicker.



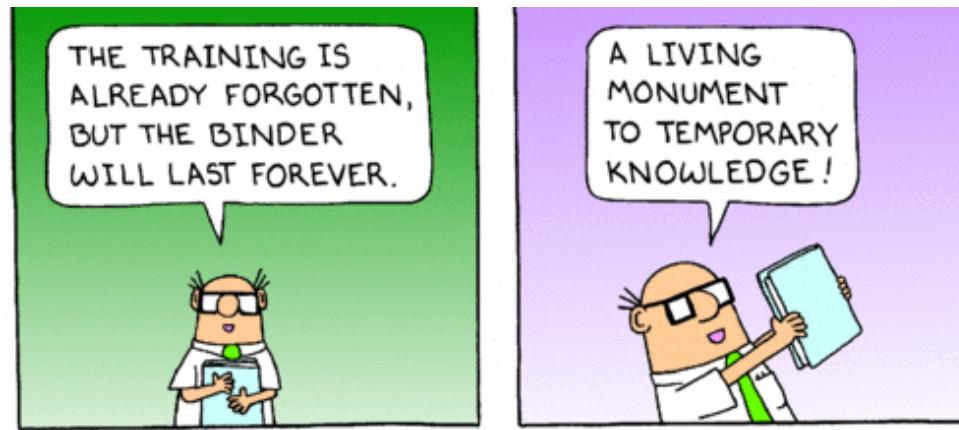
# Presentations



# Dressing



# Dilbert on training materials



# Don't overload data



# Slides

- 4 to 6 short points per slide
- Check spellings
- Proof read
- No slang
- Short sentences
- Use simple words
- Use images

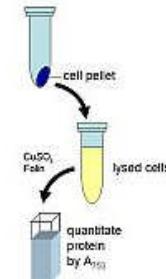
## Materials and Methods

- Step 1: A cell extract was prepared by:
  - Centrifuging the cells for 5 minutes at 5,000 x g in a microcentrifuge
  - Washing the pellet twice with 0.85% NaCl (0.86 g of NaCl in 100 ml of dH<sub>2</sub>O, sterilized by autoclaving), resuspending each time
  - Lysing cells by sonication (4 rounds of 15 1-second pulses at 40% power, keeping cells on ice between rounds)
  - Pelleting unbroken cells by low-speed centrifugation (5 minutes at 2,000 x g in microcentrifuge)
- Step 2: Proteins present in the extract were quantitated by:
  - Adding 10 µl of cell extract to 1 ml of 10% TCA in a microfuge tube
  - Vortexing and allowing proteins to precipitate for 10 minutes at room temperature
  - Centrifuging 10 minutes at maximum speed (16,000 x g in microcentrifuge) to pellet proteins
  - Addition of 1 ml of Lowry reagent C (contains Cu<sub>2</sub>SO<sub>4</sub>) followed by incubation for 10 min at room temperature
  - Addition of 0.1 ml of Folin reagent followed by immediate vortexing
  - Spectrophotometric determination of absorbance at 750 nm

Bad slide – too much text

## Protein quantitation

- Pellet and wash cells
- Lyse by sonication
- Precipitate proteins with TCA
- Add Lowry reagents
- Measure absorbance at 750 nm



Good slide

# Know your material

- Be sure you know how every term is pronounced! And what they mean-- someone may ask you.
- Avoid Acronyms like "NITTE, MITE" – audience may not know what it means.
- Stick to a theme, not just a bunch of data.
- Tell a personal story or joke.

from <http://depts.noctrl.edu/biology/seminar/tips.php>

# Speaking

- Time your presentation
- 1 slide per minute
- Test the equipment (laptop, projector, mic) one day before presentation
- Practice speaking with your group
- Take a deep breath and meditate for a few minutes before the talk, to overcome nervousness.
- Face your audience at all times
- Keep time during the talk
- Make copies of your slides available

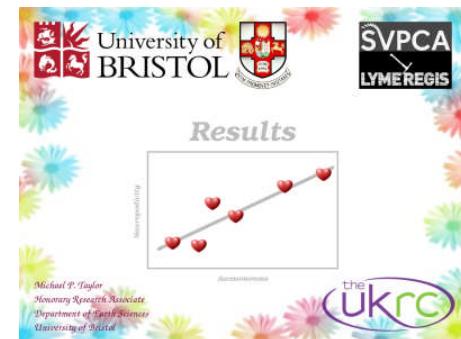
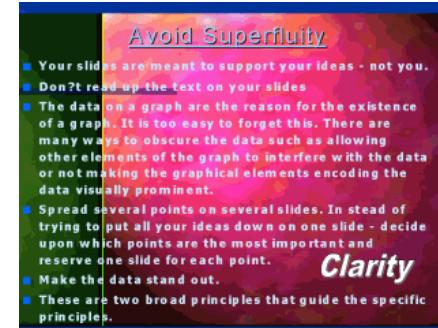
from <http://www.rogerdarlington.me.uk/Presentation.html>

# Simplicity

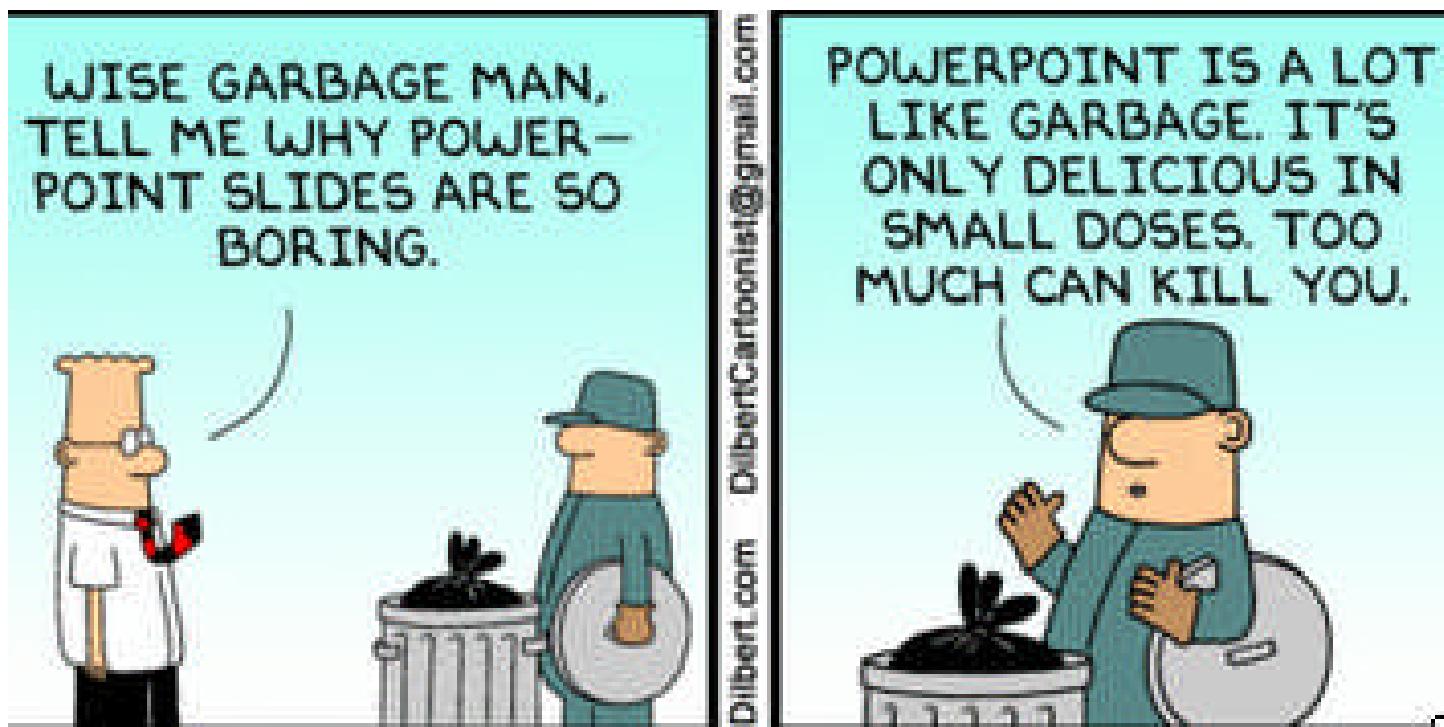
- Keep slides simple – easier to read.
- Simple font
- Black on white

----

- No fancy colors
- No fancy fonts
- No fancy background



# More is Less

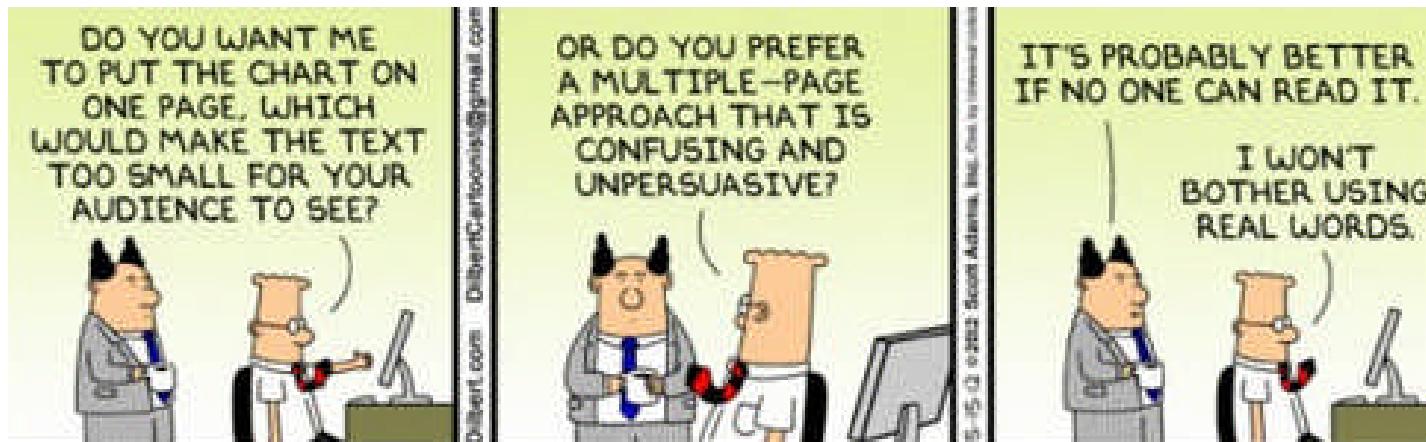


# What to put on slides

- Title of talk, Your name (group names),
  - your email,
  - course, college (jkshim), date 30/9/2013
- Table of contents
- References
- Thank those who helped.
- Have extra slides with more details – in case someone has more questions.

# Slide contents

- Just write the main points on each slide.
- Audience cannot read long texts.
- Don't read the slide, but explain the points in your own words. Keep notes, if you are nervous.



# After the talk

- Keep time for Questions from audience
- If the questions are long or complicated, continue later.
- Don't let one person in audience dominate the talk, allow everyone to ask.
- Don't be upset if someone ask a question you can't answer – offer to discuss with them afterwards.

# Data Backup

- Email your slides and report to the instructor one day before, so you have a backup in case of laptop failure.
- Keep regular backups on pen-drive / CD.



# Emergencies

Keep some extra material to talk about ..

- If the power goes out
- If the projector doesn't work
- If the sound system doesn't work

Learn to politely continue:

- If someone in the audience heckles you with irrelevant questions or points. Ask them to see you after the talk.

# Be prepared



# Questions?



# Report Writing

# Structure

1. Title, Author(s), Course, College, Date
2. Synopsis – brief summary of report
3. Report details
4. Conclusion of report
5. References
6. Appendix and data if any.

# Style

- Use short and clear sentences.
- Do not copy/paste.
- Write in your own words after understanding the material.
- Have a purpose/theme, not just a list of facts to make it interesting.
- Add images, tables to illustrate your point.



NEVER UNDERESTIMATE THE  
IMPORTANCE OF PROOFREADING

# Style

- Use active voice
  - "We inspected the knife" (action oriented, active).
  - "The knife was inspected by us" (passive).
- Use plural instead of singular.
  - I investigated the product (singular)
  - We investigated the product (plural).

## Style

- Write small paragraphs.
  - Edit out irrelevant words, so it is easier for the reader to concentrate on the important points.
  - Use bullet points to summarize the points.

**DEVELOPMENT**  
and application, especially in developing countries, of new technologies, such as the adoption of new technology, will be a major barrier to its introduction.

**THE CAPABILITY OF COMPUTING TECHNOLOGY**

The danger of active resistance to its application can be significant, particularly in developing countries, where a country's technological development is often limited by its own resources and infrastructure. This may lead to a lack of interest in adopting new technologies, which can be a significant barrier to its application.

**THE CAPABILITY OF COMPUTING TECHNOLOGY**

The danger of active resistance to its application can be significant, particularly in developing countries, where a country's technological development is often limited by its own resources and infrastructure. This may lead to a lack of interest in adopting new technologies, which can be a significant barrier to its application.



# Style

- Use single spacing between lines.

- 
1. Identify areas where no training presently exists and develop training to fill the gap. **Single-space**
  2. Create a process that addresses how to draw on talents of internal trainers and subject matter experts to cost-efficiently meet training needs
  3. Employ and continuously develop effective, knowledgeable training staff
- 

1. Identify areas where no training presently exists and develop training to fill the gap. **1.5 Line Spacing**
  2. Create a process that addresses how to draw on talents of internal trainers and subject matter experts to cost-efficiently meet training needs
  3. Employ and continuously develop effective, knowledgeable training staff
- 

1. Identify areas where no training presently exists and develop training to fill the gap. **Double-space**
2. Create a process that addresses how to draw on talents of internal trainers and subject matter experts to cost-efficiently meet training needs
3. Employ and continuously develop effective, knowledgeable training staff

from [http://www.wa.gov/esd/training/quickguides/word\\_linespacing.htm](http://www.wa.gov/esd/training/quickguides/word_linespacing.htm)

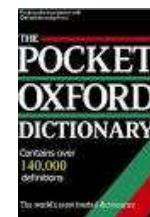
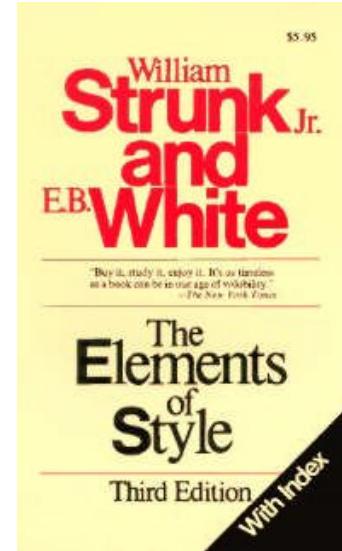
# After writing

- Read and revise
- Spell check
- Proof read for grammar and punctuation
- Ask a friend to read and make suggestions, on what is not clear.



# References

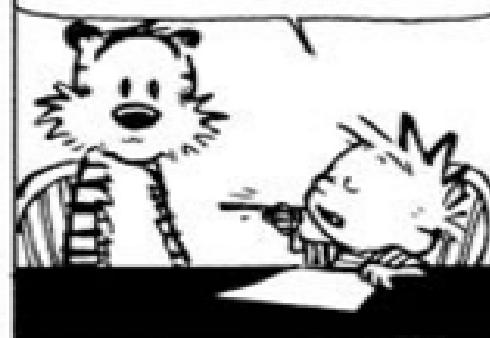
- Elements of Style, by Strunk and White, 3rd ed, 1979.
- Professional Communication, by Koneru, 2008, Tata McGraw.
- Dictionary
- Google, Wikipedia



I USED TO HATE WRITING ASSIGNMENTS, BUT NOW I ENJOY THEM.



I REALIZED THAT THE PURPOSE OF WRITING IS TO INFLATE WEAK IDEAS, OBSCURE POOR REASONING, AND INHIBIT CLARITY.



WITH A LITTLE PRACTICE, WRITING CAN BE AN INTIMIDATING AND IMPENETRABLE FOG! WANT TO SEE MY BOOK REPORT?



"THE DYNAMICS OF INTERBEING AND MONOLOGICAL IMPERATIVES IN DICK AND JANE: A STUDY IN PSYCHIC TRANSRELATIONAL GENDER MODES."



ACADEMIA,  
HERE I COME!

# Typesetting, printing and colors and fonts

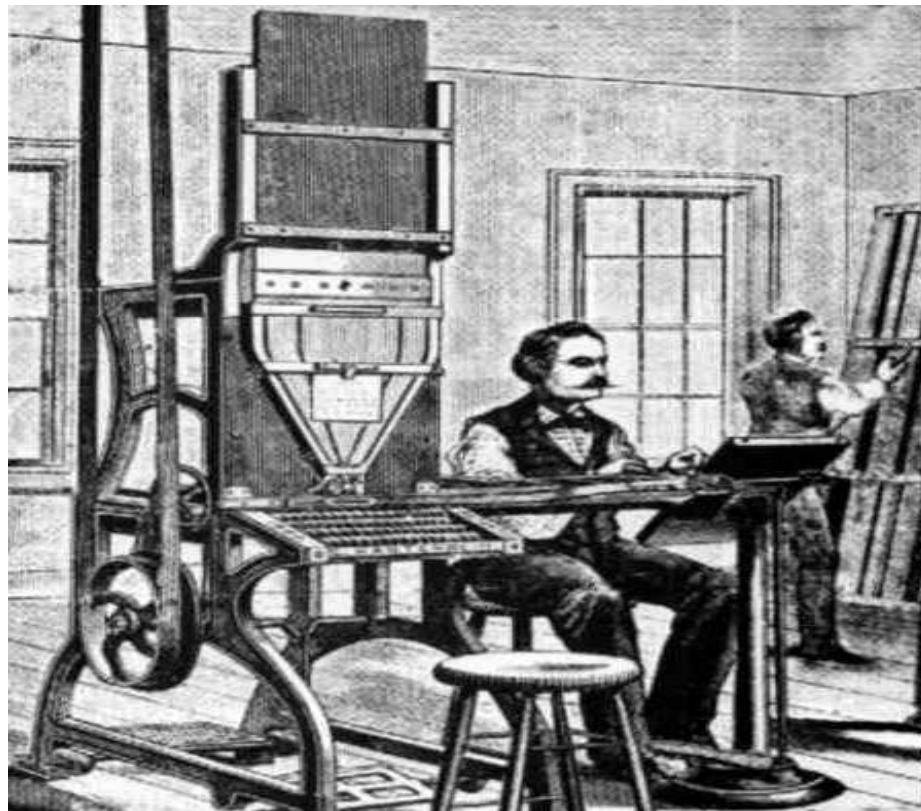
# Typesetting

- **Typesetting** is the composition of text by means of types.
- Typesetting requires the prior process of designing a font and storing it in some manner.
- Typesetting is the retrieval of the stored letters (called sorts in mechanical systems and glyphs in digital systems) and the ordering of them according to a language's orthography for visual display.

# movable type

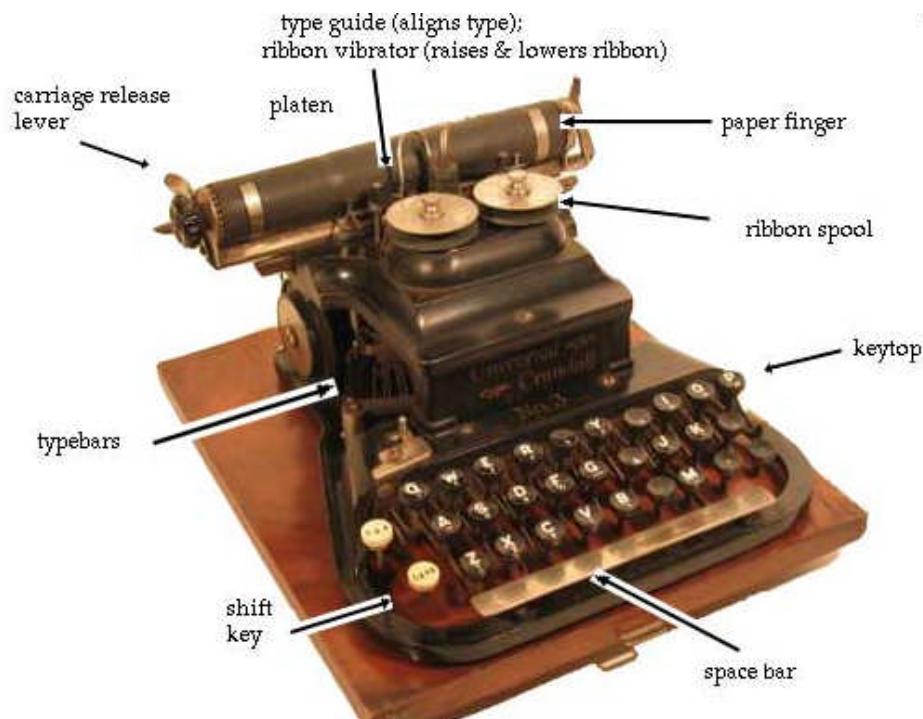


# Typesetter 1870s



# First Typewriter

- How many of you have used a typewriter?



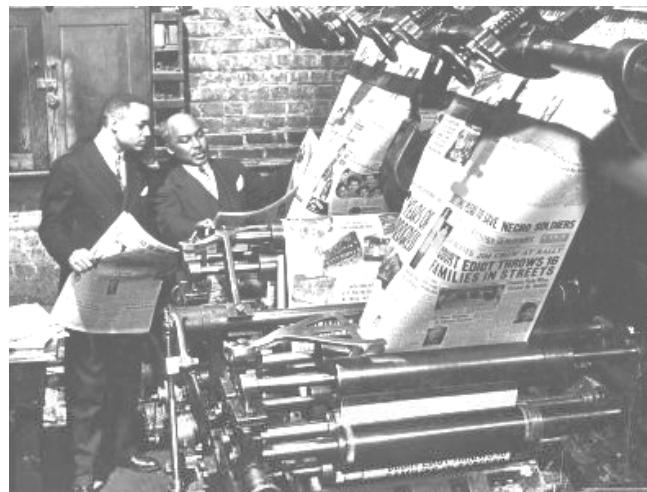
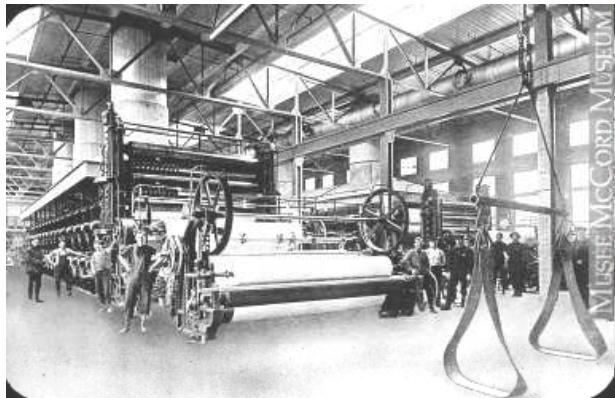
# Gutenberg's Printing Press 1450



# Modern and ancient typesetter.

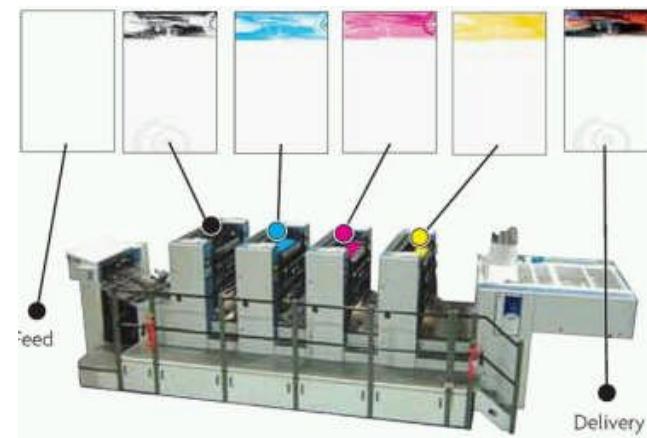
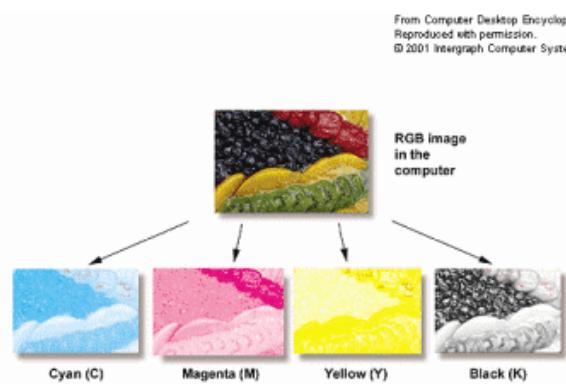


# Printing press 1925 ...

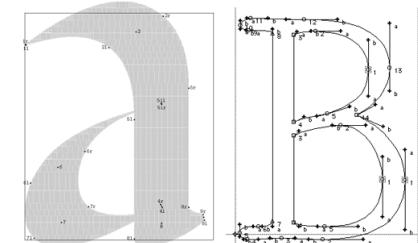


# Color printing press

- CMYK refers to the four ink colours used (cyan, magenta, yellow and black, known as in print parlance as key — hence K).  
(from [plaintalkprint.com](http://plaintalkprint.com))



# Elements of Design with Fonts and Type



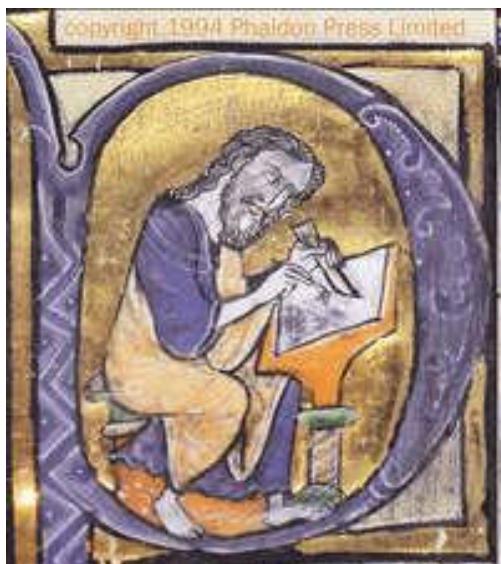
From [http://www.cems.uwe.ac.uk/~bk2dean/uwe/multimedia/mediatechnologies/lectures/weektwo/text\\_and\\_font\\_technologies.ppt](http://www.cems.uwe.ac.uk/~bk2dean/uwe/multimedia/mediatechnologies/lectures/weektwo/text_and_font_technologies.ppt)  
and [http://www.humbleisd.net/cms/lib2/TX01001414/centricity/domain/3313/design\\_type.ppt](http://www.humbleisd.net/cms/lib2/TX01001414/centricity/domain/3313/design_type.ppt)

# Text – Nature and Aesthetic

- Visual representation of a language
- Graphical symbols with visual aesthetics
- Characteristics
  - Shape
  - Spacing
  - Structure
  - Layout

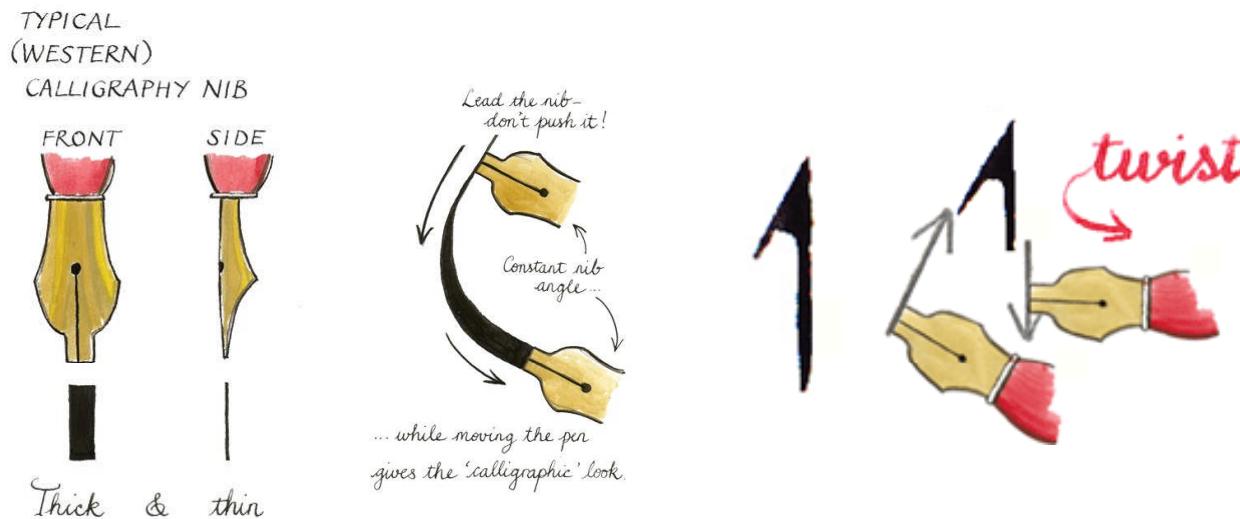
# Calligraphy

- It is the art of writing text with a broad nib (ink pen/ feather/ brush).
- Used for writing documents before printing was invented.
- Scribes are people who wrote documents



ALPHABETS

# Calligraphy fonts



from <http://www.calligraphy-skills.com/how-to-write-calligraphy.html>

# Character Representation

The quick brown fox jumps  
over the lazy dog (Courier)

The quick brown fox jumps over the lazy  
dog (Times New Roman)

# Font Technology

- Each stored character value mapped to a visual display called a *glyph*.
- Glyphs arranged in collections called *fonts*
- Some font designs originate from 15th century.

# Accessing Fonts

- Font shape (glyph) visual representation of encoded text.
- Fonts only available on local system – can't guarantee audience will have fonts on their local system
- 'System' fonts may vary across platforms e.g. Windows and Mac
- Need to embed font shapes with text thereby delivering fonts to audience
- Embedded fonts will increase file sizes

# Font Classification and Choice

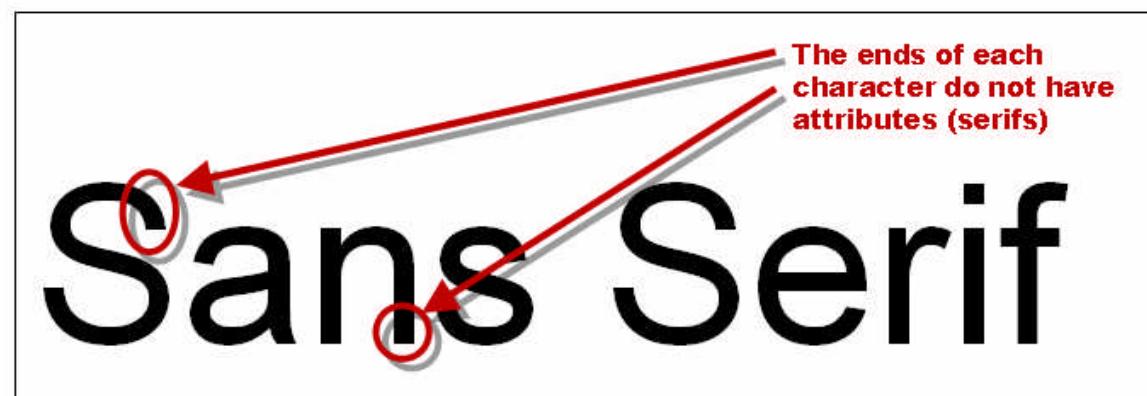
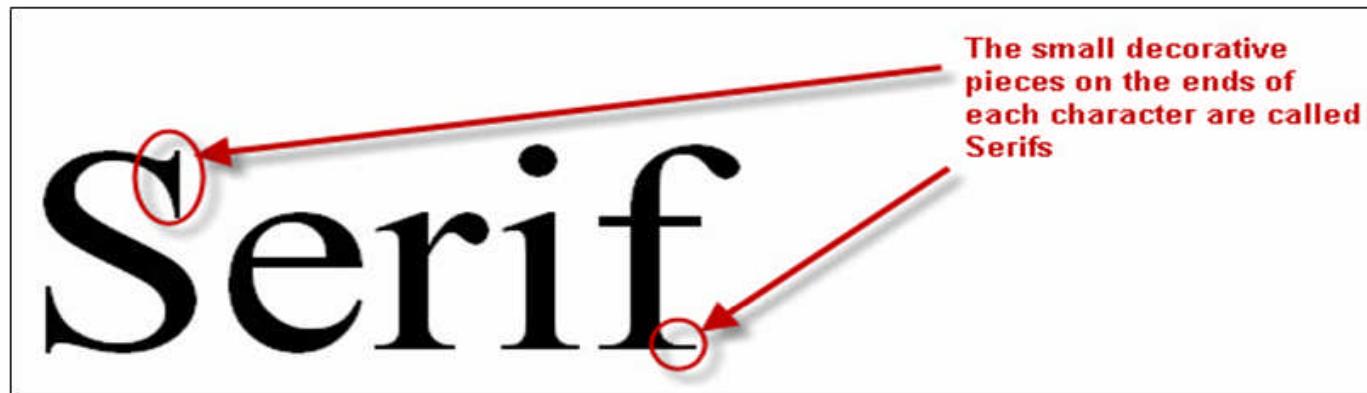
- Thousands of fonts available!
- Major distinction is between monospace and proportional
  - monospace - each letter occupies the same amount of horizontal space - has typewriter look - this is courier - designed by IBM
  - Proportional - Each letter occupies an amount of horizontal space proportional to the width of the glyph. Has the appearance of book text.

# Type Categories

The five primary categories of type are

- Serif (Example: Times Roman)
- Sans-serif (Example: Arial)
- Script (*Example*)
- Decorative (~~Example~~)
- Symbol or Pi (☞ ✕ ☺ ☻ ☠ ☩ ☮)

# Serif vs Sans Serif Typefaces



# Serif Type

- Example: Times Roman
- Formal, traditional appearance.
- Conveys a dignified image.
- Easy to read
- Used for books and newspapers.

# Examples of Serif Type

For printed text (books)

- Times Roman
- Courier
- Garamond
- Georgia
- Century
- **Garamond**
- Bodoni
- Goudy

# Fonts: Sans Serif

- Examples: Arial, *Comic Sans*
- Plain appearance
- sans-serif means “without the stroke”
- Used for
  - labels, illustrations.
  - Newspaper headlines

# Decorative Type Examples

# $\pi$ Pi or symbol font

## Examples

- Wingdings    



- Symbol  $\varepsilon \Omega \exists \alpha \pi$

# *Script font*

- Used for cards, poetry
- Examples: *French Script font*
  - *Brush Script MT*
  - *Freestyle Script*
  - *Kunstler Script*
  - *Pristina*

# Weight

- The **thickness or heaviness** of the strokes of a font style.
- Examples:
  - light: Arial Narrow
  - Medium: Arial
  - **Heavy: Arial Black**
  - Arial Rounded MT Bold

# Type style examples

- 4 categories of styles
  - Normal, regular
  - **Bold**, *Italic*, ***Bold-italic***
  - Underline (from typewriters)
  - ~~OUTLINE~~, SMALL CAPS, Shadow
- Examples:
  - **Arial–bold–12–point**
  - *Arial–italic–14–point*,
  - Arial–10–point,

S

Shadow

## SMALL CAPS

- Example: THIS FONT IS SET AS SMALL CAPS.

# Font spacing

- Courier is monospaced - easier to typeset on screen.
- Times New Roman is proportional - easier to read in newspapers, books.



Proportional

Monospace

# Font Size measurements

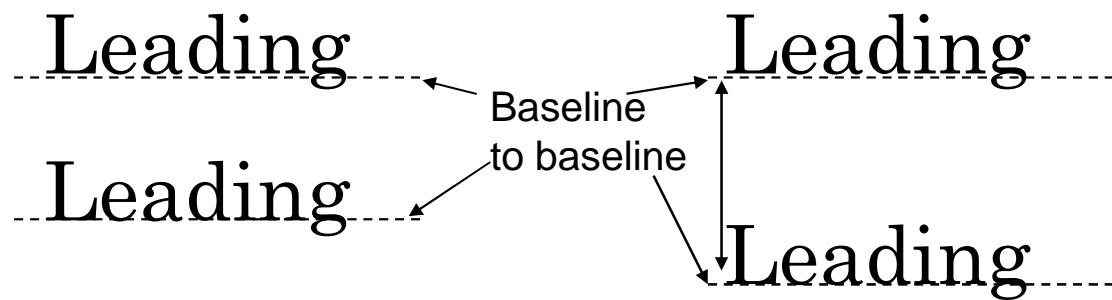
- Fonts are measured in points, 72 pt = 1 inch
- Line spacing is measured in 1 Pica = 12pt.
  - Books use '10 point Times Roman'
  - Reports use '12 point Times Roman'

# Size Examples

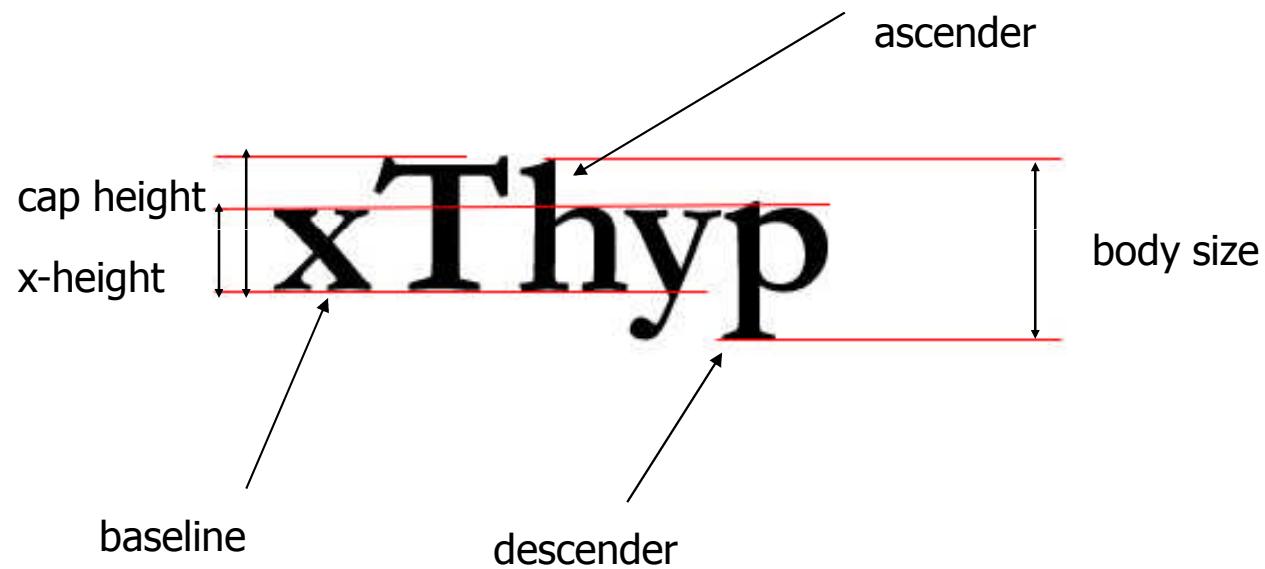
- Six point
- Eight point
- Ten point
- Twelve point
- Fourteen point
- Eighteen point
- Twenty-four point
- **Thirty-six point**

# Leading (line spacing)

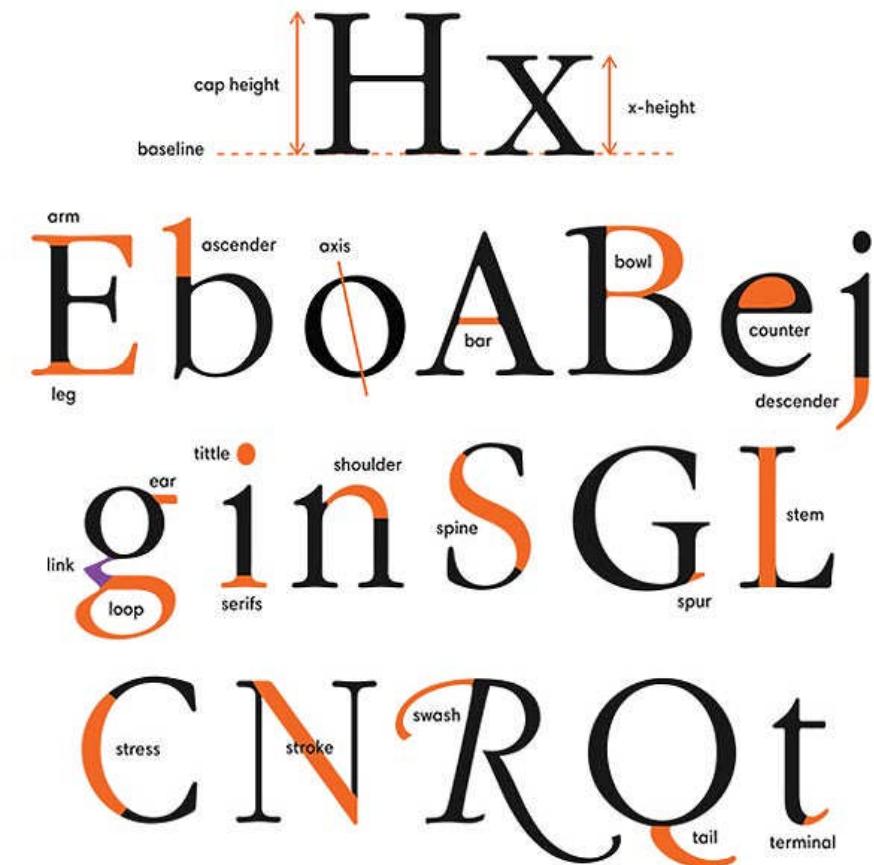
- Leading is the spacing between lines.
- Measured from baseline to baseline, in points.



# Font Terminology



# Font Terminology 2



# Kerning

Kerning tightens the spacing between letters.

Example:

WAT

WAT

# Kerning

 $+$  $=$ 

*Devangari "gii" from an un kerned font*

 $+$  $=$ 

*Devangari "gii" from the kerned version of the same font*

# Metric versus optical layout

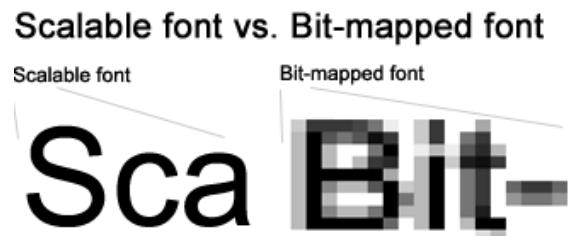
- Question:
- Which layout is better?

A For some time I stood tottering on the mound regardless of my safety. Within that noisome den from which I had emerged I had thought with a narrow intensity only of our immediate security. I had not realised what had been happening to the world, had not anticipated this startling vision of unfamiliar things. I had expected to see Sheen in ruins—I found about me the landscape, weird and lurid, of another planet. —H.G. Wells, *The War of the Worlds*

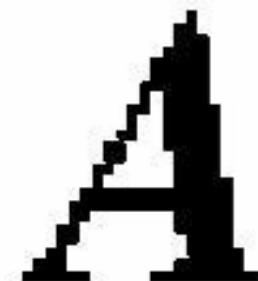
B For some time I stood tottering on the mound regardless of my safety. Within that noisome den from which I had emerged I had thought with a narrow intensity only of our immediate security. I had not realised what had been happening to the world, had not anticipated this startling vision of unfamiliar things. I had expected to see Sheen in ruins—I found about me the landscape, weird and lurid, of another planet. —H.G. Wells, *The War of the Worlds*

# Digital Font – Bitmaps or Outline?

- Glyphs stored as bitmaps or vector graphics (bitmap fonts & outline fonts) respectively.
- Outline font can be scaled
- Bitmap fonts lose resolution when scaled



Outline font

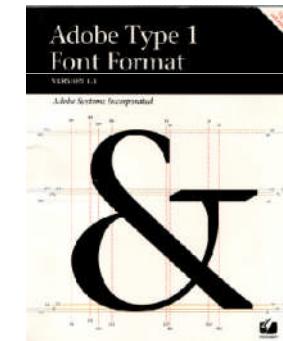
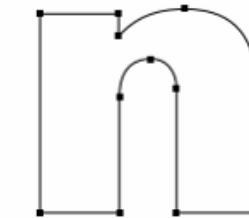
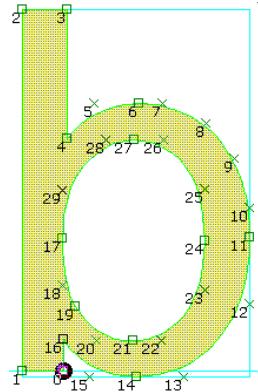


bitmapped font

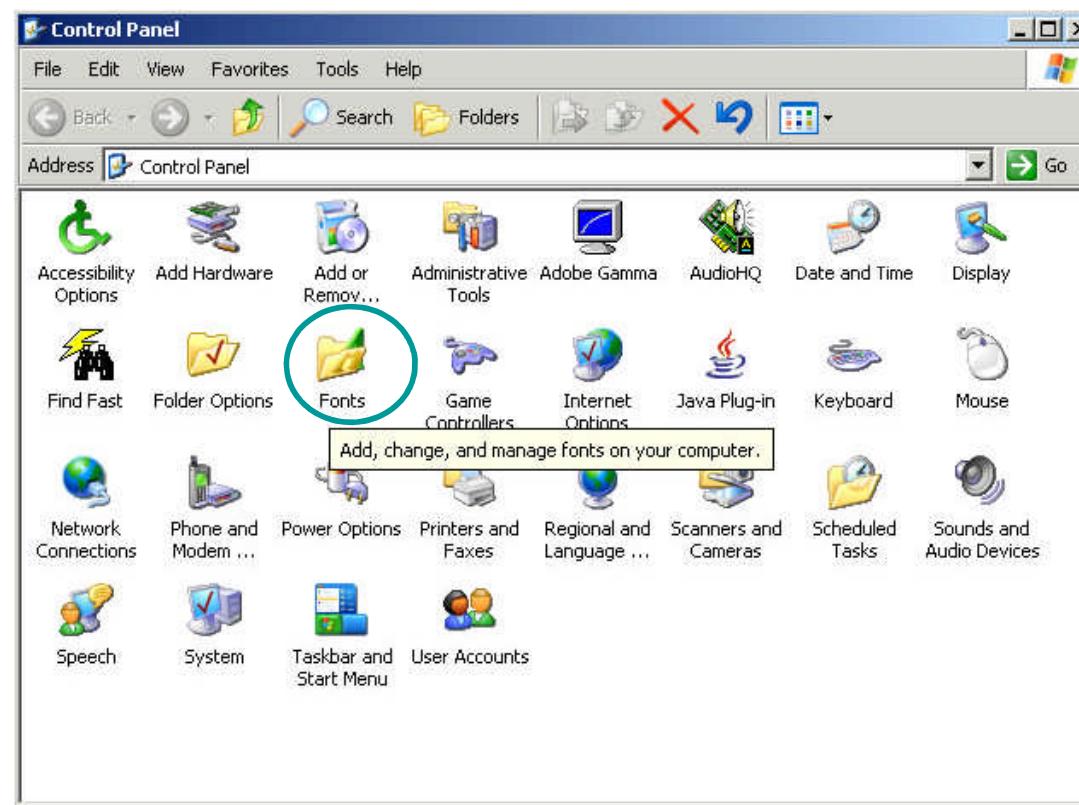
# Commercial fonts

- Fonts are predominately of the **outline** true-type variety
- **Adobe Type 1 (Postscript)**

see <http://www.truetype-typography.com/ttoutln.htm>  
<https://www.microsoft.com/typography/tools/vtt.aspx>



# Font in Windows



# Character Sets

## ANSI Extended ASCII (Windows)

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
8	□	□	,	f	~	..	+	#	^	‰	š	<	©	□	□	□
9	□	`	'	``	~~	-	-	-	~	„	š	>	œ	□	□	ÿ
A	i	c	£	¤	⌘	!`	S	..	®	™	«	¬	-	®	-	-
B	°	±	±	±	μ	¶	·	·	·	·	◦	»	↳	↳	↳	↳
C	À	Á	Â	Ã	Ä	Ë	Ç	È	É	Ê	Ë	Ì	Í	Î	Ï	Ï
D	Ð	Ñ	Ò	Ó	Ô	Ö	Ö	×	Ø	Ù	Ú	Û	Ü	Ý	P	B
E	à	á	â	ã	ä	æ	ç	è	é	ê	ë	í	í	í	í	í
F	ö	ñ	ò	ó	ô	ö	ö	÷	ø	ù	ú	û	ü	ý	p	ÿ

A screenshot of a terminal window titled "unicode\_chars.txt". The window displays a variety of Greek letters (ΑΒΓΔΕΖΗΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩ) and other special characters, including mathematical symbols like sigma (Σ), multiplication (×), and division (÷), as well as punctuation and diacritics. The text is rendered in a monospaced font, likely Arial Unicode MS-10, showing how different characters are displayed on the screen.

# Special Characters

- **Quotes:** "Straight-up typewriter quotes"  
“Smart stylish quotes”
- **Ligatures.**  
**These are substitutes for certain pairs of letters, e.g. fi, fl, ff, ffi, ffl**



ff fi fl ffi ffl

*You can easily see the subtle variation in the appearance of these character pairs. (The i within a ligature does not have a dot.)*

# Alignment left/right

This is an example of text that is aligned to the left. Notice that the right side is jagged, but the left side is smooth along the left edge.

This is an example of text that is aligned to the right. Notice that the left side is jagged, but the right side is smooth along the right edge.

# Alignment center/justified

This is an example of text that is **center aligned**. Notice that the right and left sides are jagged. Everything extends out from the center.

This is an example of text that has **justified alignment**. Notice that the left and right sides are smooth. This is achieved by adjusting the spacing within the line. Often the last line of justified text does not extend all the way to the right edge.

Arial Unicode MS (TrueType)

Done Print

# Arial Unicode MS (TrueType)

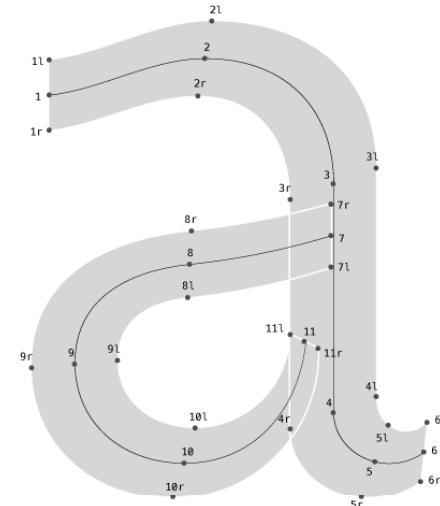
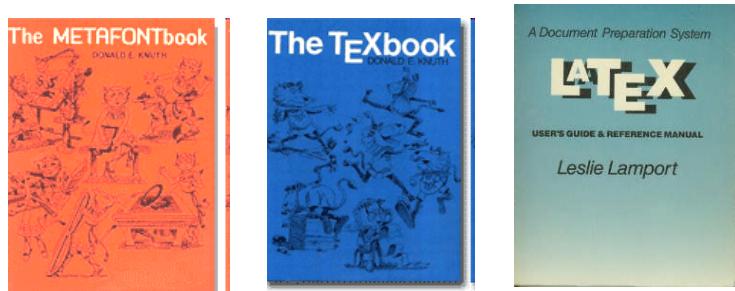
Typeface name: Arial Unicode MS  
File size: 23566 KB  
Version: Version 0.84  
Digitized data copyright (C) 1993-1999 The Monotype Corporation. All rights reserved. Arial® is a trademark of The Monotype Corporation which may be registered in certain jurisdictions.

abcdefghijklmnopqrstuvwxyz  
ABCDEFGHIJKLMNOPQRSTUVWXYZ  
123456789.:;,:(\*!?)

12 The quick brown fox jumps over the lazy dog. 1234567890  
18 The quick brown fox jumps over the lazy dog. 1234567890  
24 The quick brown fox jumps over the lazy dog. 1234567890  
36 The quick brown fox jumps over the lazy dog. 1234567890  
48 The quick brown fox jumps over the lazy dog. 1234567890

# Metafont

- Metafont is a free program to design elegant fonts using mathematical equations.
- Metapolator is a graphics program to generate metafont(s).
- Tex by Knuth and Latex programs can be used for typesetting books and papers.



# Conveying **Mood** with font

- Attitude
- Mood
- Theme
- Examples:

SPRING

Frosty

# Type Do's

- Times-Roman for
  - Traditional
  - conventional values
  - stability.
- sans-serif type for
  - labels, illustrations, modern look,
  - children's book.
- decorative type for
  - novelty

## Type Do's

- Use decorative type sparingly.
- Use decorative type in display sizes only (24 point or larger).
- Use script type for announcements and invitations.
- Use type appropriate to your message.

# Type Don'ts

- DON'T USE TYPE IN ALL UPPER CASE.  
IT IS HARDER TO READ THAN UPPER  
AND LOWERCASE LETTERS.
- Don't ~~use~~ too many typefaces within **a project**.
- Don't leave too much or toolittle  
spacebetweenlinesof type.

# Critical Listening



# People hear what they want



- Don't assume people understand what you say.

# Exercise 1. Silent listening

- Sit next to someone you don't know well
- Let the two people be A and B
  - A: smaller roll no
  - B: larger roll no
- A will speak first for **5 minutes.**
- B will listen **silently** without giving advice
- A and B will keep the **confidentiality** of the conversation – not to mention it to anyone else.

# Exercise 1. Listen to a story

## Speaker:

- Tell your life story in short.
- Include some difficult events that stress you.

## Listener:

- Be comfortable
- Look at the speaker.
- Mentally put tape on your mouth.
- Watch your and speaker's body language.
- Watch your thoughts silently (no advice).
- Listen without judgment.

# People see the world through their biases



## Exercise 1-B. Repeat.

- Switch Speaker and Listener
- Repeat for 5 minutes

Questions:

- Was it easy to listen?
- Did you feel the other person was listening?

## Exercise 2, Listen to a complaint

Speaker A: **Complain** about something that troubles you (e.g. food, bus) in 2 minutes.

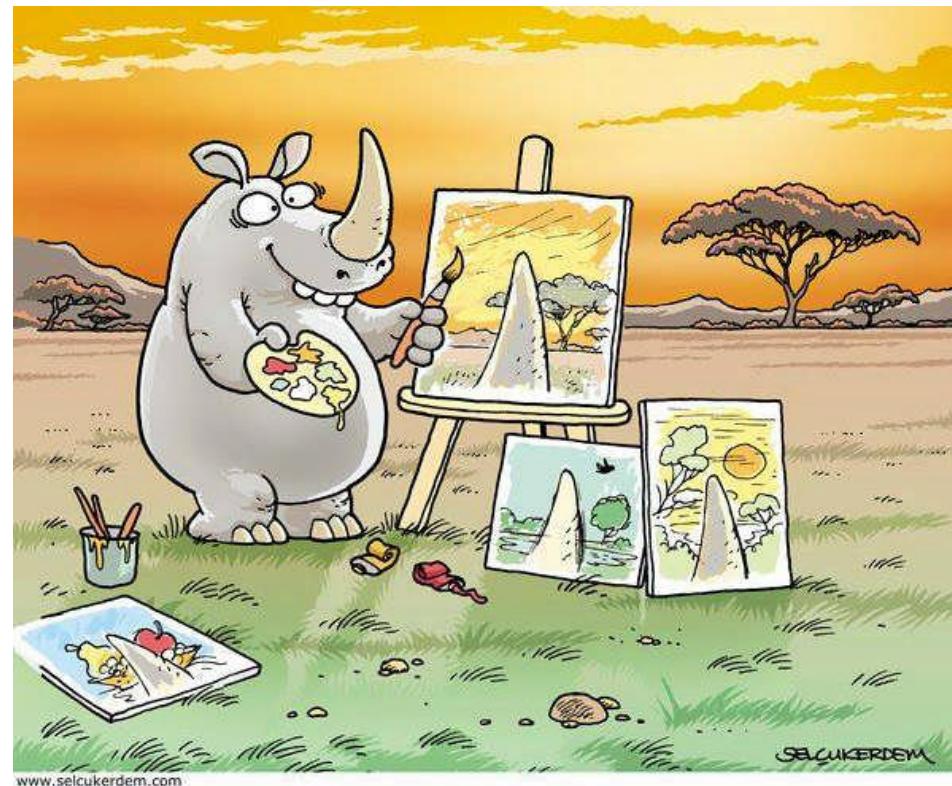
Listener B: **Listen and then Repeat** in your own words, what you heard in 2 minutes.

Speaker A: Check that B understood your complaint.

-----

Exercise 2-B. Repeat with B/A.

# People see the world through their biases



# Exercise 3. Socratic Questioning

- Speaker A describes his/her problem in 2 minutes.
  - B listens and only asks questions (but no advice) for 3 minutes.
- 
- Exercise 3-B. Repeat with B/A



*The Socratic Method  
Teaching By Questioning*

# Deal with bad influence/fraudster



## Exercise 4. Polite Decline

- A. Try to induce B to a bad business deal or bad habit (2 minutes).
- B: Listen completely without interrupting.
- Politely decline to join (e.g. sorry, I do not want to take part).
- Don't give reason or excuse.

Exercise 4-B. repeat with B/A.

# Vipassanā

- **Vipassana** means to see things as they really are. It is one of India's most ancient techniques of meditation.
- In the Buddhist tradition means insight into the true nature of reality.
- **Zen** is the Japanese version of this.
- **Existentialism** is French version of this, without the moral part – this is all there is to life, everything else is in your mind.

# Why Vipassanā?

- Here and now is the only reality.
- Mind is distracted from reality by: emotions and chemical: ego, emotions, greed, jealousy, hatred, gluttony, love, lust, drugs, addiction.
- What is the problem with fantasy?
  - denial: you can't solve a problem
- A weak mind falls into fantasy, clouding thoughts and weakening ability to plan and act logically.

# Why Vipassanā?

- It is calming the mind to not get lost by stray thoughts, to maintain focus on the reality.
- When the mind is calm, you can observe your fear, anger, hate, greed, jealousy, love, desires, emotions; and deal with it, rather than be a slave to your emotions.

# Beginning Vipassana: Breath

- Find a quiet place to sit comfortably.
- The first stages of meditation should be simply observation of breath.
- Concentrate on the nostrils where the breath flows in... out... in... out.
- Be aware of the touch of air as it strikes the passage through the nostrils.

# Vipassana: Why Breath?

- The breath is controlled by both the conscious and unconscious part of the brain.
- The smelling nerves in the nose are directly connected to the primitive part of the brain, skipping the logical processing.
- The breath sets the rhythm of brain – quick breathing and slow breathing in **Art of Living** is based on this idea.

## Beginning Vipassana: Awareness

- In fact be aware of everything and nothing. This sounds contradictory. Yet it is really not.
- No time to daydream, to entertain vagrant and migratory thoughts.
- You are aware of your physical posture. Then you forget that also.

## Beginning Vipassana at home

- You are aware that the past is dead, that it is gone.
- Yet specific consciousness of your whole preceding life is absent.
- The future does not yet exist.
- All you have is "right now"... the in... out... in... out rhythm of the breath of life.

## Exercise 5: Dealing with an unknown obnoxious person.

Scenario: A is in a bus is a bus, B the bus conductor doesn't have change and ask you to get down from the bus in middle of nowhere in evening.

A: Be angry and ask B to get out.

B: Argue back loudly and refuse to be bullied.

## Dealing with a hardheaded colleague

- Scenario A invites B for lunch
- B is vegetarian
- A is trying to convince B to try non-veg.
- B to refuse politely

## Exercise 6: Delicate dealing with a bad boss

Scenario: A is new employee, B is the boss.  
B will asks A to work late night and give reasons why work must be done or A will be fired.

A: Fight back very politely and refuse to stay back late.

## Exercise 7: Avoiding trouble in an interview.

Scenario: A is interviewing for good job, B the Boss wants to discuss politics/personal topics not related to the job, and know what A thinks.

B: Ask a politically loaded question.

A: How to side step the bad question without offending B.

# Journaling

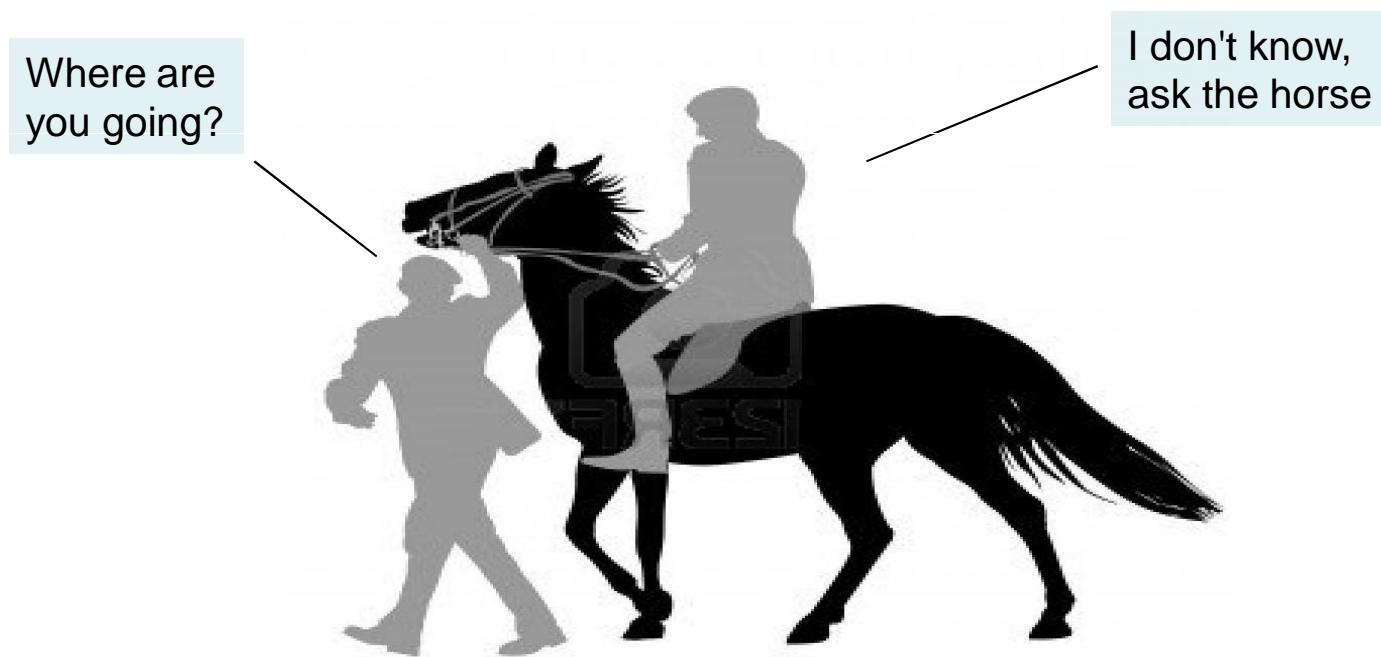


# Journaling

- Write your thoughts in a notebook for 15 minutes daily (1 page or more).
- Topics:
  - I wish that ..
  - I am inspired by ..
  - I want to do ..
  - What stops me from what I want to be ..
  - How can I be what I want to be ..
  - Things I should do ..

# Journaling Exercise

Write 1 page in your notebook on how this picture relates to your life



Latex

LATEX

Free Typesetting Software for  
Journals, Papers, Books.

# Sample output: test.dvi

L<sup>A</sup>T<sub>E</sub>X

ETEX is a document preparation system for the TeX typesetting program. It offers programmable desktop publishing features and extensive facilities for automating most aspects of typesetting and desktop publishing, including numbering and cross-referencing, tables and figures, page layout, bibliographies, and much more. ETEX was originally written in 1984 by Leslie Lamport and has become the dominant method for using TeX; few people write in plain TeX anymore. The current version is ETEX2<sub>ε</sub>.

$$E_0 = mc^2 \tag{1}$$

$$E = \frac{mc^2}{\sqrt{1 - \frac{v^2}{c^2}}} \tag{2}$$

# Sample Input: test.tex

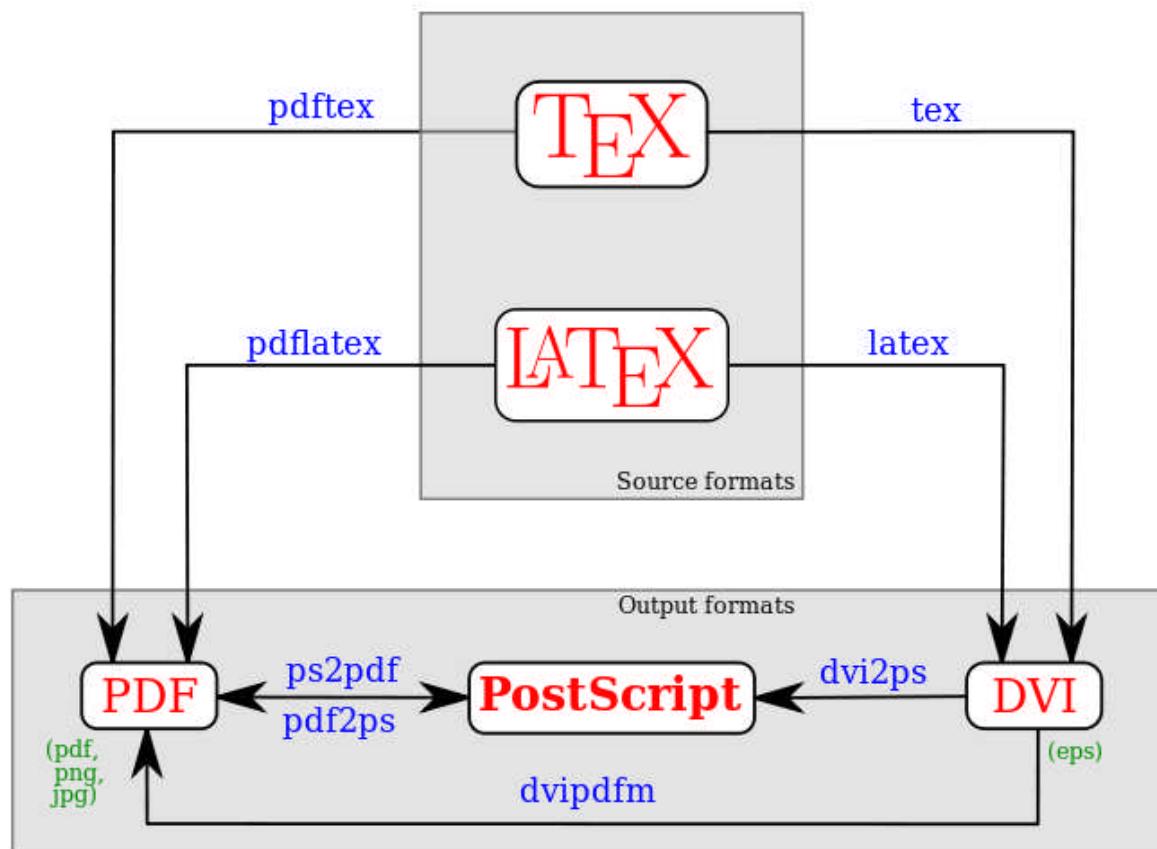
## Markup

```
\documentclass[12pt]{article}
\usepackage{amsmath}
\title{\LaTeX}
\date{}
\begin{document}
\maketitle
\LaTeX{} is a document preparation system for the \TeX{} typesetting program. It offers programmable desktop publishing features and extensive facilities for automating most aspects of typesetting and desktop publishing, including numbering and cross-referencing, tables and figures, page layout, bibliographies, and much more. \LaTeX{} was originally written in 1984 by Leslie Lamport and has become the dominant method for using \TeX; few people write in plain \TeX{} anymore.
The current version is \LaTeXe.

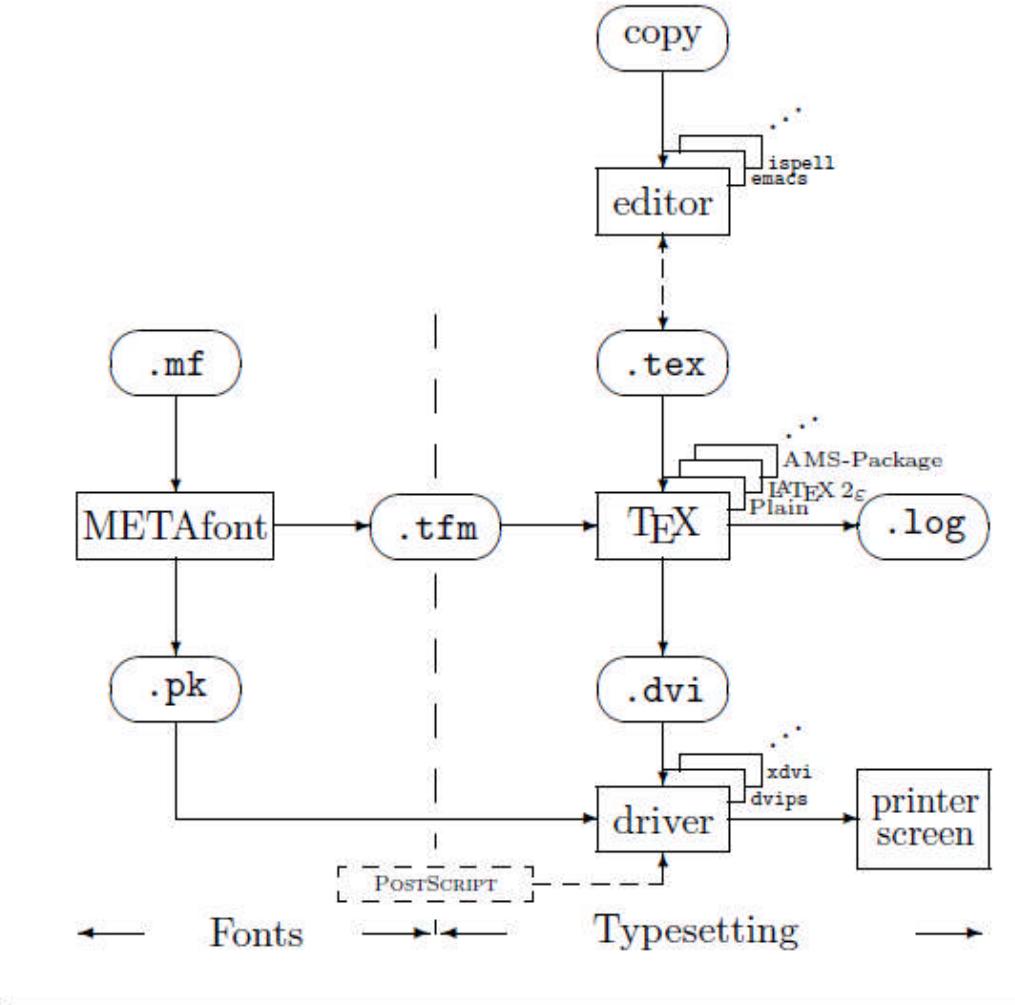
% This is a comment, not shown in final output.
% The following shows typesetting power of LaTeX:
\begin{align}
E_0 &= mc^2 \\
E &= \frac{mc^2}{\sqrt{1-\frac{v^2}{c^2}}}
\end{align}
\end{document}
```

# Processing in Latex

file.tex to file.dvi to file.pdf



# Latex Workflow



# MikTex for windows

Download and install miktex for windows

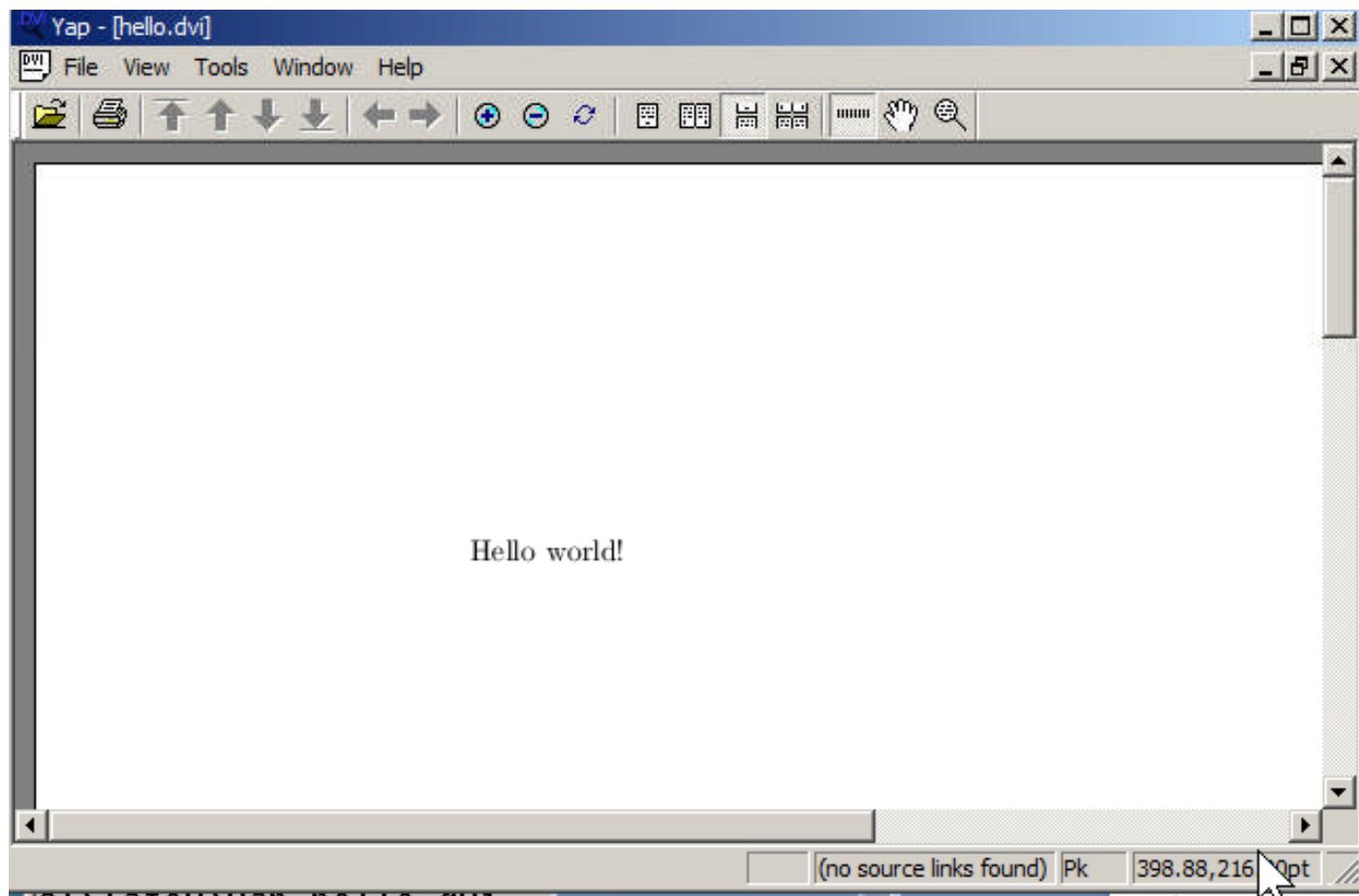
start > run > cmd >

c:\> latex hello.tex

```
Administrator: C:\Windows\System32\cmd.exe
c:\> latex hello.tex
This is pdfTeX, Version 3.1415926-2.4-1.40.13 (MiKTeX 2.9)
entering extended mode
(c:\> latex\hello.tex
LaTeX2e <2011/06/27>
Babel <v3.8m> and hyphenation patterns for english, afrikaans, ancientgreek, arabic, armenian, assamese, basque, bengali, bokmal, bulgarian, catalan, coptic, croatian, czech, danish, dutch, esperanto, estonian, farsi, finnish, french, galician, german, german-x-2012-05-30, greek, gujarati, hindi, hungarian, icelandic, indonesian, interlingua, irish, italian, kannada, kurmanji, latin, latvian, lithuanian, malayalam, marathi, mongolian, mongolianlmc, monogreek, ngerman, ngerman-x-2012-05-30, nynorsk, oriya, panjabi, pinyin, polish, portuguese, romanian, russian, sanskrit, serbian, slovak, slovenian, spanish, swedish, swissgerman, tamil, telugu, turkish, turkmen, ukenglish, ukrainian, uppersorbian, usenglishmax, welsh, loaded.
(C:\>miktex\tex\latex\base\article.cls
Document Class: article 2007/10/19 v1.4h Standard LaTeX document class
(C:\>miktex\tex\latex\base\size10.clo))
No file hello.aux.
[1] (c:\> latex\hello.aux) )
Output written on hello.dvi (1 page, 232 bytes).
Transcript written on hello.log.

c:\> latex>
```

c:\> yap hello.dvi



# Getting a pdf file

On Windows

Start > run > cmd >

c:\> notepad hello.tex

c:\> latex hello.tex

c:\> dvipdf hello.dvi

You get hello.pdf

# hello.tex

```
\documentclass{article}
\begin{document}
    Hello world!
\end{document}
```

# Syntax

```
\command[options]{parameters}
\documentclass[11pt]{article}
\begin{document}
\chapter{Introduction}
    This chapter's content...
\section{Structure}
    This section's content...
\subsection{Top Matter}
    This subsection's content...
\subsubsection{Article Information}
    This subsubsection's content...

\end{document}
```

# Title page

```
\documentclass[11pt,a4paper]{report}
\begin{document}
\title{How to Structure a LaTeX Document}
\author{Andrew Roberts}
\date{December 2004}
\maketitle
\end{document}
```

% from [http://en.wikibooks.org/wiki/LaTeX/Document\\_Structure](http://en.wikibooks.org/wiki/LaTeX/Document_Structure)

# Title page

```
\title{Our Fun Document}  
\author{Jane Doe \and John Doe}  
\date{\today}  
\maketitle
```

# Abstract

```
\documentclass{article}
```

```
\begin{document}
```

```
\begin{abstract}
```

Your abstract goes here...

...

```
\end{abstract}
```

...

```
\end{document}
```

# wiki.tex

1. \documentclass[12pt]{article}
2. \usepackage{amsmath}
3. \title{\LaTeX{}}
4. \date{}
5. \begin{document}
6. \maketitle
7. \LaTeX{} is a document preparation system for the \TeX{} typesetting program. ...
8. % This is a comment, from <http://en.wikipedia.org/wiki/LaTeX>
9. \begin{align}
10.  $E_0 \&= mc^2 \\$
11.  $E \&= \frac{mc^2}{\sqrt{1 - \frac{v^2}{c^2}}}$
12. \end{align}
13. \end{document}

# wiki.dvi

L<sup>A</sup>T<sub>E</sub>X

L<sup>A</sup>T<sub>E</sub>X is a document preparation system for the T<sub>E</sub>X typesetting program. It offers programmable desktop publishing features and extensive facilities for automating most aspects of typesetting and desktop publishing, including numbering and cross-referencing, tables and figures, page layout, bibliographies, and much more. L<sup>A</sup>T<sub>E</sub>X was originally written in 1984 by Leslie Lamport and has become the dominant method for using T<sub>E</sub>X; few people write in plain T<sub>E</sub>X anymore. The current version is L<sup>A</sup>T<sub>E</sub>X2 <sub>$\varepsilon$</sub> .

$$E_0 = mc^2 \tag{1}$$

$$E = \frac{mc^2}{\sqrt{1 - \frac{v^2}{c^2}}} \tag{2}$$

# Latex constructs

It does not matter whether you enter one or several spaces after a word.

An empty line starts a new paragraph.

```
\# \$ \% ^{} \& \_ \{ \} \~{}
```

It does not matter whether you enter one or several spaces after a word.

An empty line starts a new paragraph.

```
# $ % ^ & _ { } ~
```

“Please press the ‘x’ key.”

Quotes

```
daughter-in-law, X-rated\\
pages 13--67\\
yes---or no? \\
\$0$, \$1$ and \$-1$
```

```
daughter-in-law, X-rated
pages 13–67
yes—or no?
0, 1 and –1
```

Hypen

# Foreign Characters

```
H\"otel, na\"i ve, \\'el\`eve, \\  
sm\o rrebr\o d, !'Se\~norita!, \\  
Sch\"onrunner Schlo\ss{}{}  
Stra\ss{} e
```

---

Hôtel, naïve, élève,  
smørrebrød, ¡Señorita!,  
Schönrunner Schloß Straße

---

Table 2.1: Accents and Special Characters.

---

à	\`{o}	ó	\'{o}	ô	\^o	õ	\~o
ò	\=o	ó	\.{o}	ö	\\"o	ç	\c{c}
ő	\u{u} o	ő	\v{o}	ő	\H{o}	ø	\c{o}
ő	\d{o}	ő	\b{o}	őő	\t{oo}		
œ	\oe	Œ	\OE	æ	\ae	Æ	\AE
å	\aa	Å	\AA				
ø	\o	Ø	\O	ƒ	\l	Ł	\L
ı	\i	Ј	\j	ı	!‘	ڃ	?‘

---

# Article to Report to Book

The following sectioning commands are available for the `article` class:

<code>\section{...}</code>	<code>\paragraph{...}</code>
<code>\subsection{...}</code>	<code>\subparagraph{...}</code>
<code>\subsubsection{...}</code>	

You can use two additional sectioning commands for the `report` and the `book` class:

<code>\part{...}</code>	<code>\chapter{...}</code>
-------------------------	----------------------------

Footnotes<sup>a</sup> \footnote{This is  
a footnote.} are often used  
by people using \LaTeX.

Footnotes<sup>a</sup> are often used by people using  
\LaTeX.

---

<sup>a</sup>This is a footnote.

# Fonts

```
\textit{You can also  
  \emph{emphasize} text if  
  it is set in italics,}  
\textsf{in a  
  \emph{sans-serif} font,}  
\texttt{or in  
  \emph{typewriter} style.}
```

*You can also emphasize text if it is set in italics, in a sans-serif font, or in typewriter style.*

Table 5.3: Absolute Point Sizes in Standard Classes.

size	10pt (default)	11pt option	12pt option
\tiny	5pt	6pt	6pt
\scriptsize	7pt	8pt	8pt
\footnotesize	8pt	9pt	10pt
\small	9pt	10pt	11pt
\normalsize	10pt	11pt	12pt
\large	12pt	12pt	14pt
\Large	14pt	14pt	17pt
\LARGE	17pt	17pt	20pt
\huge	20pt	20pt	25pt
\Huge	25pt	25pt	25pt

# Font Sizes

Table 5.5:  $\text{\TeX}$  Units.

---

<b>mm</b>	millimetre $\approx 1/25$ inch	□
<b>cm</b>	centimetre = 10 mm	□
<b>in</b>	inch = 25.4 mm	□
<b>pt</b>	point $\approx 1/72$ inch $\approx \frac{1}{3}$ mm	□
<b>em</b>	approx width of an ‘M’ in the current font	□
<b>ex</b>	approx height of an ‘x’ in the current font	□

---

# Fonts

Table 5.1: Fonts.

---

<code>\textrm{...}</code>	roman	<code>\textsf{...}</code>	sans serif
<code>\texttt{...}</code>	typewriter		
<code>\textmd{...}</code>	medium	<code>\textbf{...}</code>	<b>bold face</b>
<code>\textup{...}</code>	upright	<code>\textit{...}</code>	<i>italic</i>
<code>\textsl{...}</code>	slanted	<code>\textsc{...}</code>	SMALL CAPS
<code>\emph{...}</code>	<i>emphasized</i>	<code>\textnormal{...}</code>	document font

---

Table 5.2: Font Sizes.

---

<code>\tiny</code>	tiny font	<code>\Large</code>	larger font
<code>\scriptsize</code>	very small font	<code>\LARGE</code>	very large font
<code>\footnotesize</code>	quite small font	<code>\huge</code>	<b>huge</b>
<code>\small</code>	small font	<code>\Huge</code>	<b>largest</b>
<code>\normalsize</code>	normal font		
<code>\large</code>	large font		

---

# Lists: Enumerate, Itemize, Description

```
\flushleft
\begin{enumerate}
\item You can mix the list environments to your taste:
\begin{itemize}
\item But it might start to look silly.
\item[-] With a dash.
\end{itemize}
\item Therefore remember:
\begin{description}
\item[Stupid] things will not become smart because they are in a list.
\item[Smart] things, though, can be presented beautifully in a list.
\end{description}
\end{enumerate}
```

1. You can mix the list environments to your taste:

- But it might start to look silly.
- With a dash.

2. Therefore remember:

Stupid things will not become smart because they are in a list.

Smart things, though, can be presented beautifully in a list.

# Justified / Flushed

```
\begin{flushleft}  
This text is\\ left-aligned.  
\LaTeX{} is not trying to make  
each line the same length.  
\end{flushleft}
```

This text is  
left-aligned. L<sup>A</sup>T<sub>E</sub>X is not trying to make  
each line the same length.

```
\begin{flushright}  
This text is right-\\aligned.  
\LaTeX{} is not trying to make  
each line the same length.  
\end{flushright}
```

This text is right-  
aligned. L<sup>A</sup>T<sub>E</sub>X is not trying to make each  
line the same length.

```
\begin{center}  
At the centre\\of the earth  
\end{center}
```

At the centre  
of the earth

# Quoting

A typographical rule of thumb  
for the line length is:

```
\begin{quote}
```

On average, no line should  
be longer than 66 characters.

```
\end{quote}
```

This is why \LaTeX{} pages have  
such large borders by default and  
also why multicolumn print is  
used in newspapers.

A typographical rule of thumb for the line  
length is:

On average, no line should be  
longer than 66 characters.

This is why LATEX pages have such large bor-  
ders by default and also why multicolumn  
print is used in newspapers.

# Poem / Verse

```
I know only one English poem by  
heart. It is about Humpty Dumpty.  
\begin{flushleft}  
\begin{verse}  
Humpty Dumpty sat on a wall:\\  
Humpty Dumpty had a great fall.\\  
All the King's horses and all  
the King's men\\  
Couldn't put Humpty together  
again.  
\end{verse}  
\end{flushleft}
```

I know only one English poem by heart. It is about Humpty Dumpty.

Humpty Dumpty sat on a wall:  
Humpty Dumpty had a great  
fall.  
All the King's horses and all  
the King's men  
Couldn't put Humpty together  
again.

# Verbatim\*

The `\verb|\ldots|` command `\ldots`

```
\begin{verbatim}
10 PRINT "HELLO WORLD ";
20 GOTO 10
\end{verbatim}
```

```
\begin{verbatim*}
the starred version of
the      verbatim
environment emphasizes
the spaces  in the text
\end{verbatim*}
```

The `\ldots` command ...

```
10 PRINT "HELLO WORLD ";
20 GOTO 10
```

the\_starred\_version\_of  
the\_verbatim  
environment\_emphasizes  
the\_spaces\_in\_the\_text

# Tables

```
\begin{tabular}{|r|l|}\hline 7C0 & hexadecimal \\3700 & octal \\ \cline{2-2} 11111000000 & binary \\ \hline \hline 1984 & decimal \\ \hline \end{tabular}
```

7C0	hexadecimal
3700	octal
11111000000	binary
1984	decimal

```
\begin{tabular}{|p{4.7cm}|}\hline Welcome to Boxy's paragraph.  
We sincerely hope you'll  
all enjoy the show.\\ \hline \end{tabular}
```

Welcome to Boxy's paragraph. We sincerely hope you'll all en- joy the show.
---

# Math

```
$\lim_{n \rightarrow \infty}\sum_{k=1}^n \frac{1}{k^2} = \frac{\pi^2}{6}$
```

$$\lim_{n \rightarrow \infty} \sum_{k=1}^n \frac{1}{k^2} = \frac{\pi^2}{6}$$

```
\begin{displaymath}\lim_{n \rightarrow \infty}\sum_{k=1}^n \frac{1}{k^2} = \frac{\pi^2}{6}\end{displaymath}
```

$$\lim_{n \rightarrow \infty} \sum_{k=1}^n \frac{1}{k^2} = \frac{\pi^2}{6}$$

```
$\sqrt{x}$ \quad  
$\sqrt{ x^2 + \sqrt{y} }$  
$\qquad \sqrt[3]{x^2} \\ [3pt]  
$\sqrt[x^2 + y^2]{z}$
```

$$\begin{array}{ccc} \sqrt{x} & \sqrt{x^2 + \sqrt{y}} & \sqrt[3]{2} \\ & \sqrt{x^2 + y^2} & \end{array}$$

```
$\lambda, \xi, \pi, \mu, \Phi, \Omega$
```

$$\lambda, \xi, \pi, \mu, \Phi, \Omega$$

# More math

```
\begin{eqnarray}
f(x) &=& \cos x \\
f'(x) &=& -\sin x \\
\int_{0}^x f(y)dy &=& \sin x
\end{eqnarray}
```

$$f(x) = \cos x \quad (3.5)$$

$$f'(x) = -\sin x \quad (3.6)$$

$$\int_0^x f(y)dy = \sin x \quad (3.7)$$

See `latex-short-intro.pdf` or google “`latex symbols`” for full list of symbols

# Referencing / Bibliography

```
Partl^{\cite{pa}} has  
proposed that \ldots  
\begin{thebibliography}{99}  
\bibitem{pa} H.^{Partl}:  
\emph{German \TeX},  
TUGboat Volume^9, Issue^1 (1988)  
\end{thebibliography}
```

Partl [1] has proposed that ...

## Bibliography

- [1] H. Partl: *German \TeX*, TUGboat Volume 9, Issue 1 (1988)

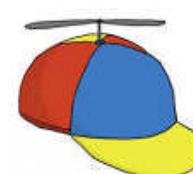
# References

- <http://en.wikipedia.org/wiki/TeX>
- <http://en.wikibooks.org/wiki/TeX/Basics>
- <http://www.latex-project.org/>
- <http://www.ctan.org/starter>

# Safety

# Questions about hats

- Purpose of a cap?



- Purpose of a hat?



- Purpose of a helmet?



# Always carry a safety helmet when riding a bike. [sarcasm].

- In case of accident, put on the helmet.
- If stopped by police, put on seat belts.
- The world will remember you as a safe driver.



# Safety (spot the problems)



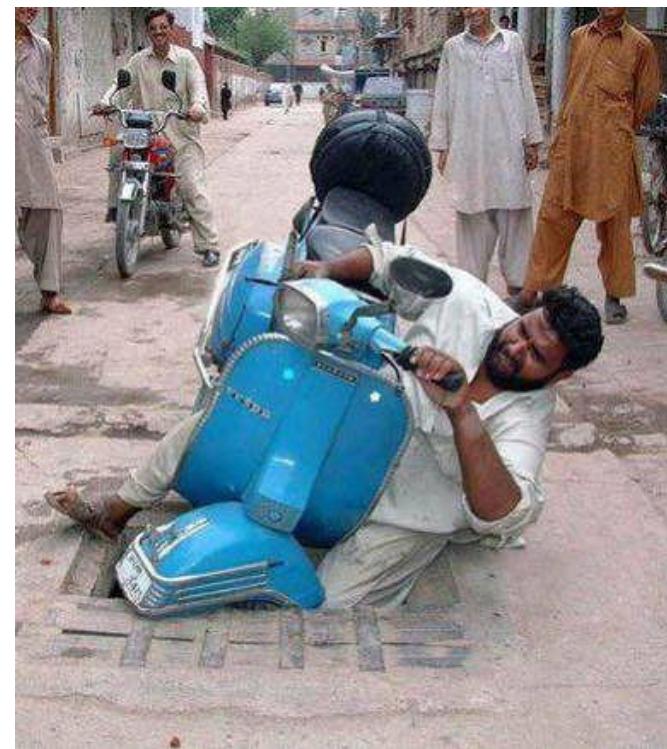
# Movie clip on bike safety

The father is wearing a helmet,  
What can go wrong?



# Stopping distance

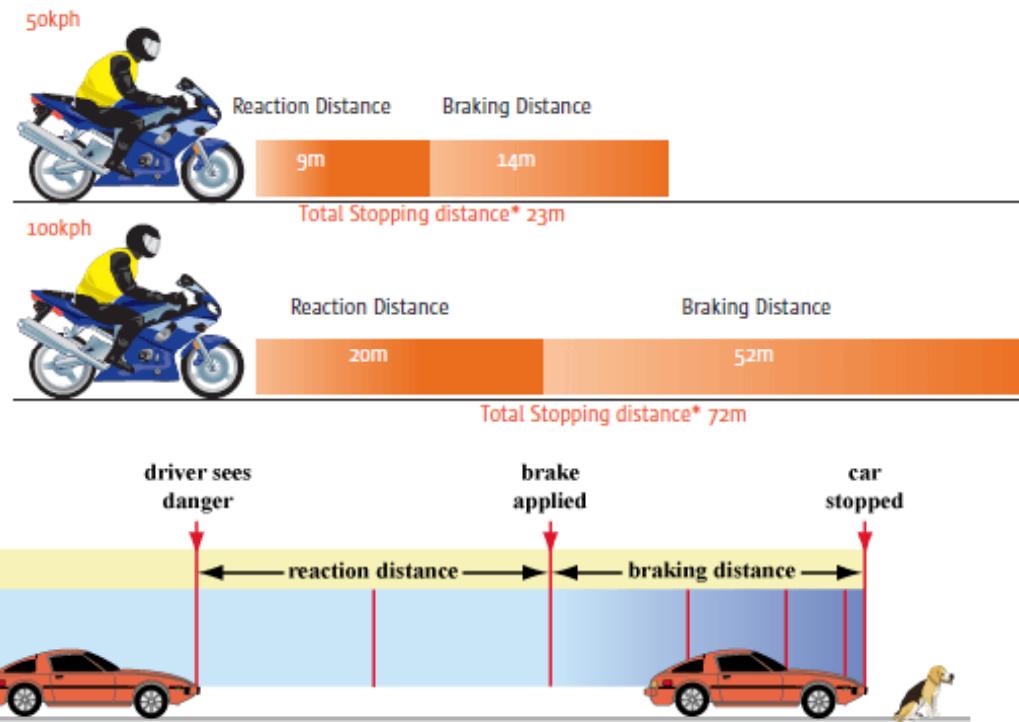
- You should not go so fast, that you can't stop when you see a pot-hole.



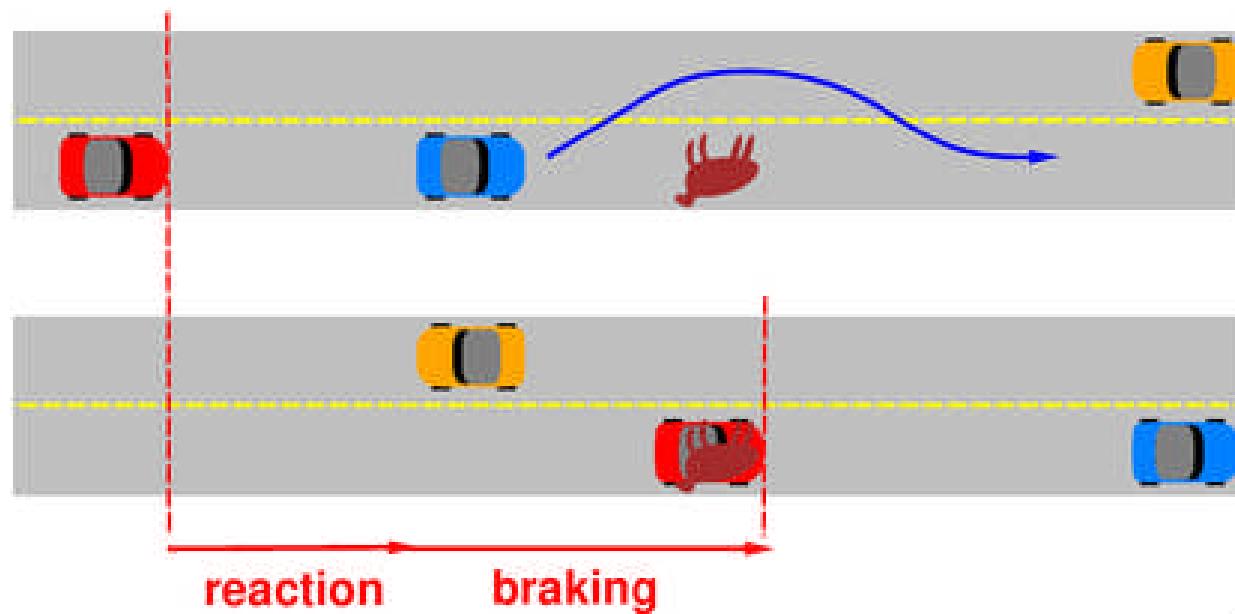
# Keep safe braking distance



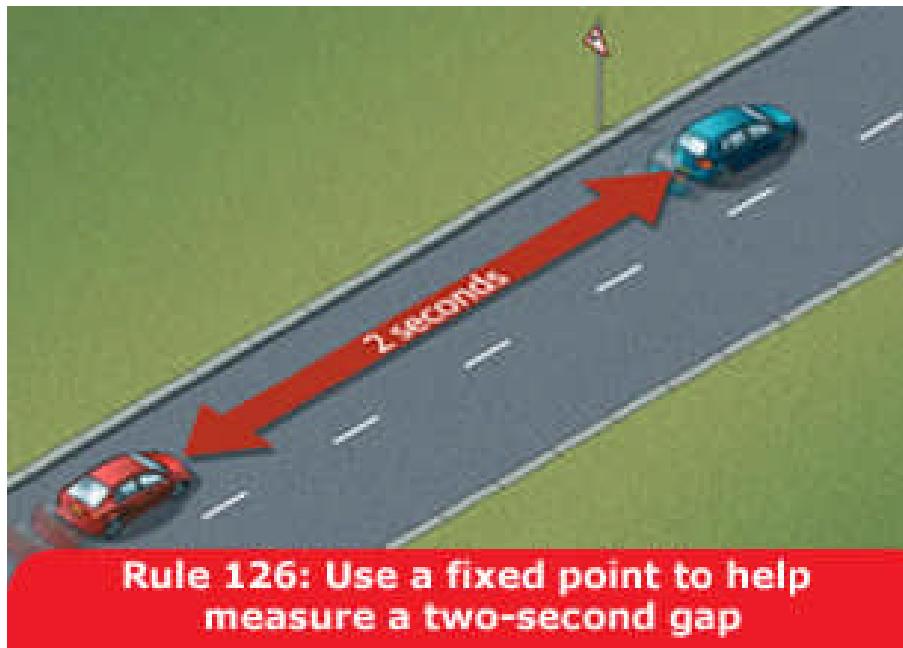
# Stopping distance



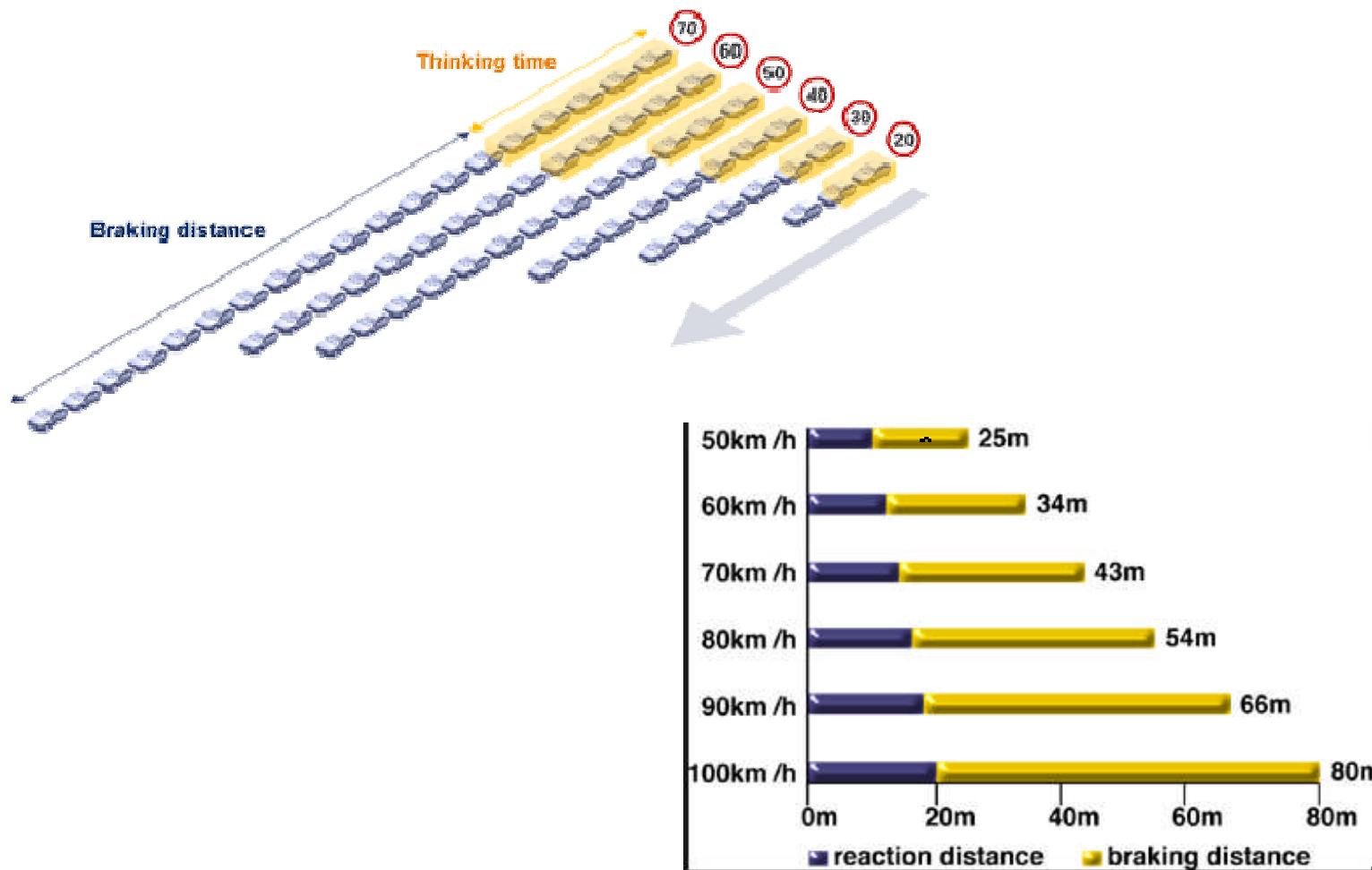
# Reaction time



# 2s gap



# Speed vs braking distance

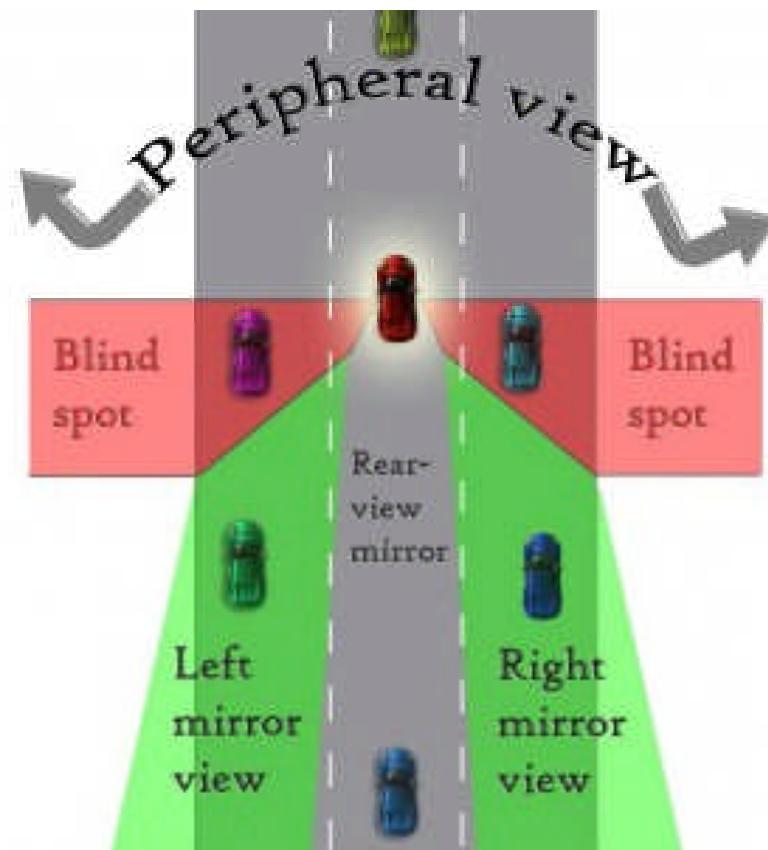


# Helmet can't save you even at 30kmph fall from a bike

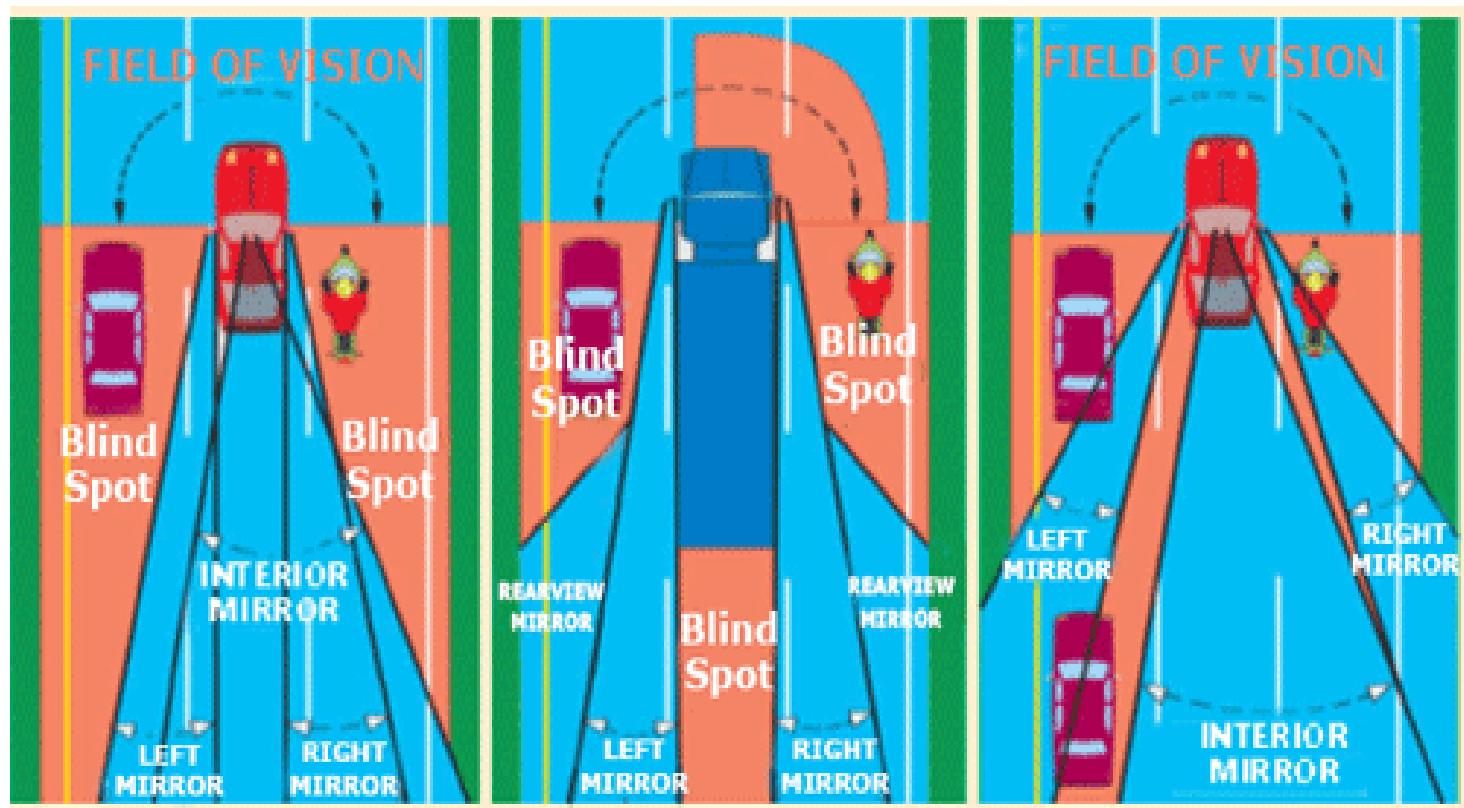
- You can die with a proper helmet even at 20kmph [[the dog story](#)].



# Blind spot

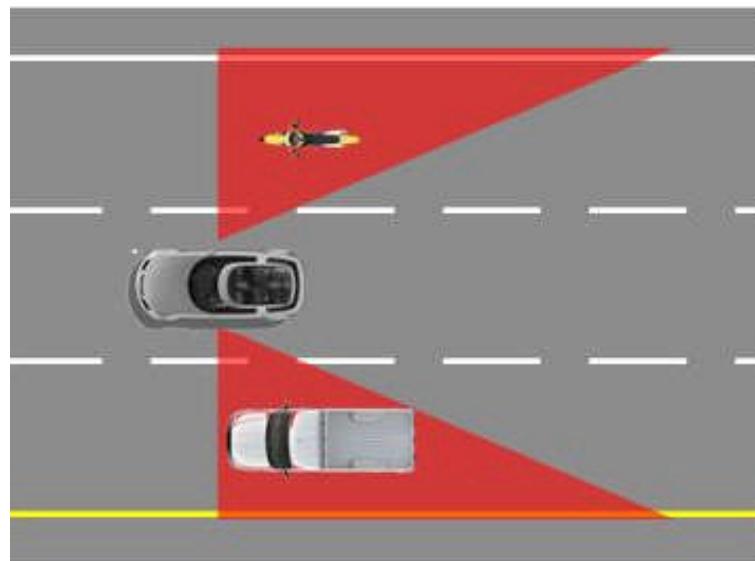


# Rear view mirror miss some.



# Driving in the blind spot

- The middle car driver cannot see the bike and car in his blind spot, without turning.



# Bike in blind spot of the car



Turn to look before turning.



Truck driver may not see the car and turn into the car's lane.



bike is not visible to the car, unless he turns to see

# Wear a seat belt if available

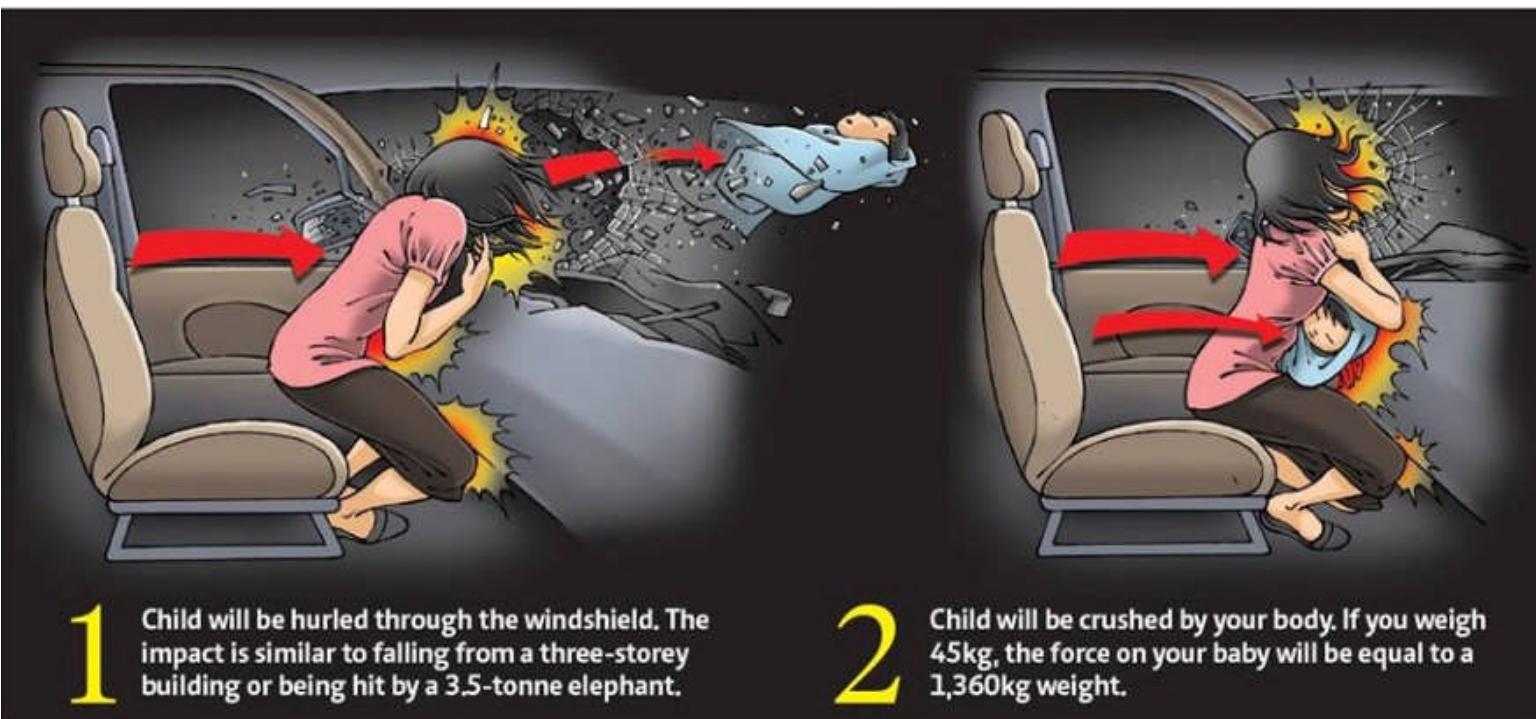


- from <http://www.team-bhp.com/forum/street-experiences/131293-things-they-don-t-teach-you-indian-driving-school.html>

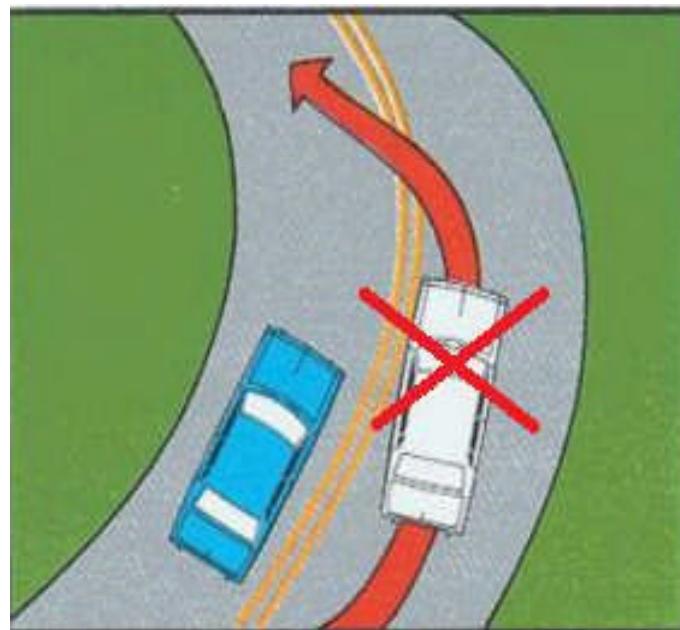
# Why seat belts?

**What can happen to your unrestrained baby if your car, moving at 50kph, meets an accident**

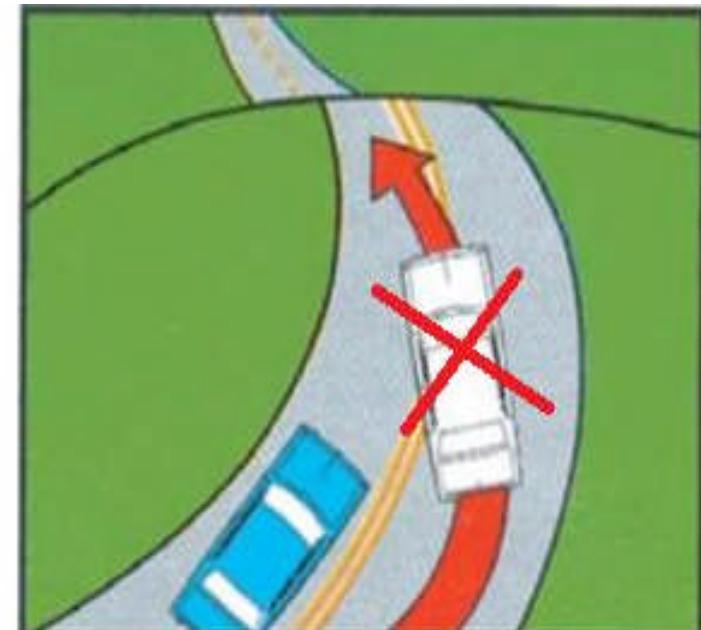
INFOGRAPHIC: NST



Do not overtake if you cannot see  
oncoming traffic or at a corner



Curves



Hills

# Quiz. Q1

1. If you see a ball bounce in front of your car, where should you look?
  1. Ignore the ball.
  2. See where the ball is going.
  3. See where the ball came from?



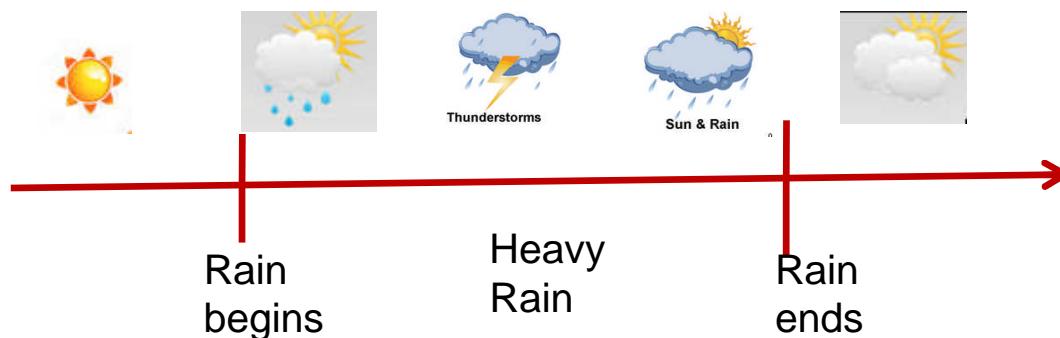
# Quiz. Answer 1.

1. If you see a ball bounce in front of your car, where should you look?
  1. Ignore the ball.
  2. See where the ball is going.
  3. See where the ball came from?



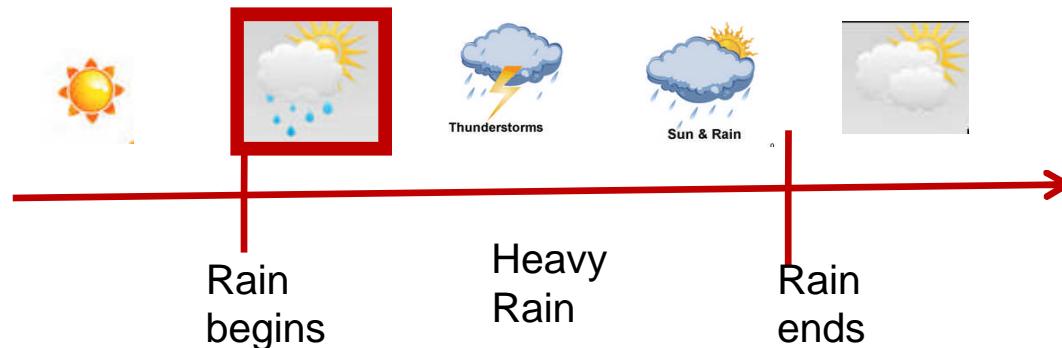
# Quiz. Q2

1. When is the road most dangerous?
  1. 5 min before rain begins.
  2. 5 min after rain starts.
  3. 1 hour of heavy rain.
  4. 5 min before rain stops.
  5. 5 min after rain stops.



## Quiz. Answer 2

1. When is the road most dangerous?
  1. 5 min before rain begins.
  2. 5 min after rain starts – *because Road is slippery because of air below water.*
  3. 1 hour of heavy rain.
  4. 5 min before rain stops.
  5. 5 min after rain stops.



# Questions

- Which brake (front or back) to apply for emergency stopping a motorbike?
- Is the helmet necessary for a bike passenger?
- What is "stopping distance"?
- What is ABS?
- How many people die in road accidents everyday in our country?

# Answers

- Apply **both brakes** together.
- Helmet is necessary for **everyone** on bike.
- "**Stopping distance**" is the amount of distance you need to bring a vehicle to a stop in an emergency.
- ABS is Anti-locking brake system, so bike won't skid (slip) when full brakes are applied.
- In India, the death toll was 14 per hour in 2009. More than 1 Lakh die every year on road.

[http://en.wikipedia.org/wiki/List\\_of\\_countries\\_by\\_traffic-related\\_death\\_rate](http://en.wikipedia.org/wiki/List_of_countries_by_traffic-related_death_rate)

# Academic Dysfunction - reasons and management

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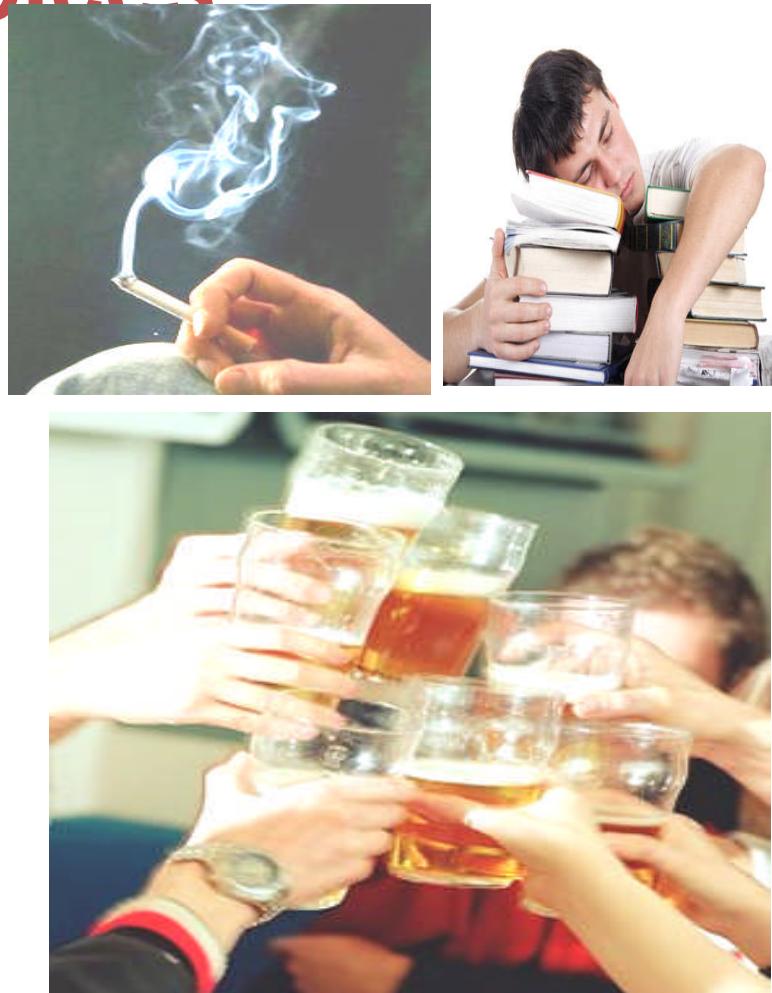
Edited by Dr. Mohsin Ahmed, JKSHIM, Karakala, 4/2014

# Academic dysfunction, reasons and management

- Studies show that about 50% students suffer from health problems. 15% Psychological problems
- Psychological problems affect academics, relationships, and personality development of students
- Academic problems  Psychological problems

# The Challenge of College: Choices

- Alcohol and other drugs
- Sex-identity, values, practices
- Food
- Sleep
- Balancing Academic and Extracurricular
- Roommates



# The Challenge of College

- Greater academic demands
- Unstructured time
- Decreased adult availability
- Being on their own in a new environment
- Changing relations with family



## **Why Now?**

- More Diversity- Cultural, Socio-economic, “Family Dreams”
- Availability of Drugs, alcohol, tobacco
- Financial Stress
- Pressure to perform
- Pressure to conform
- Pressure to reform
- M- Money, Mobile, Motor bike, Media.

## Socrates on children (300 B.C)

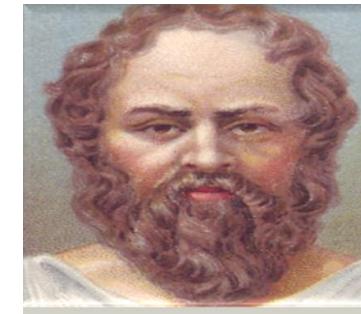
"Our youth love fun and luxury:  
they have bad manners, contempt for  
authority;

they show disrespect for elders and  
like chattering in place of work.

Children are now tyrants, not the  
servants of their households.

They no longer rise to their feet when  
elders enter the room.

They contradict their parents, gobble  
up their food and tyrannize their  
teachers."



What do you see in this picture?



## Common complaints of students regarding academic dysfunction

- Poor memory
- Poor attention/concentration
- Dry subject
- Boredom
- Feeling Sleepy



# Common complaints of teachers and parents regarding academic dysfunction

- Dull student
- Intelligent student but lazy
- Inferiority complex
- Boy friend/ Girl friend
- Distracted
- Family problems



# Actual causes of poor learning and poor memory

## Student intrinsic factors

- Low IQ, student forced into studies.
- Learning disability (Case Study : Ganesh)
- Lack of interest in subject (Case Study: ISKON)
- Poor motivation (Case Study: RAK)
- Poor self-esteem and lack of self confidence (Case Study: CS)
- Ill-health : physical and mental health, drug abuse.

# Lack of Study Skills

- Wrong study methods
- Continuous reading without understanding or break, memorizing
- No review, no recall, no practice of writing answers in stipulated time
- Selective study
- Irregular eating, sleeping habit
- Reading late into the night



# Family related

- Comparison
- Criticism
- Allowing no time for adequate recreation and relaxation
- Family obligations
- Financial problems
- Alcoholism in parent/s



# Teacher related



- Monotonous lecturing
- No audio-visual aids
- No practical demonstrations
- Negative attitude of teachers
- Irregularities in Examination system
- Discrimination



## Environment related

- Peer/senior' influence.
- Extra curricular activities are not studies.
- Competition
- Media: TV, Mobile, Movies, video games, Internet/images, chatting, social media.

# Back benchers



# How to identify poor performers

- Missing classes (attendance)
- Not submitting assignments
- Poor participation in class activities.
- Lack of academic preparation
- Difficulty answering tests.
- Sitting in last rows .

# **Common Psychological Causes of Academic dysfunction**

- 1. Procrastination (delaying work).**
- 2. Examination Anxiety (fear).**
- 3. Attention Deficit disorder (ADD, restlessness)**
- 4. Depression (sadness).**

# Procrastination (until tomorrow)

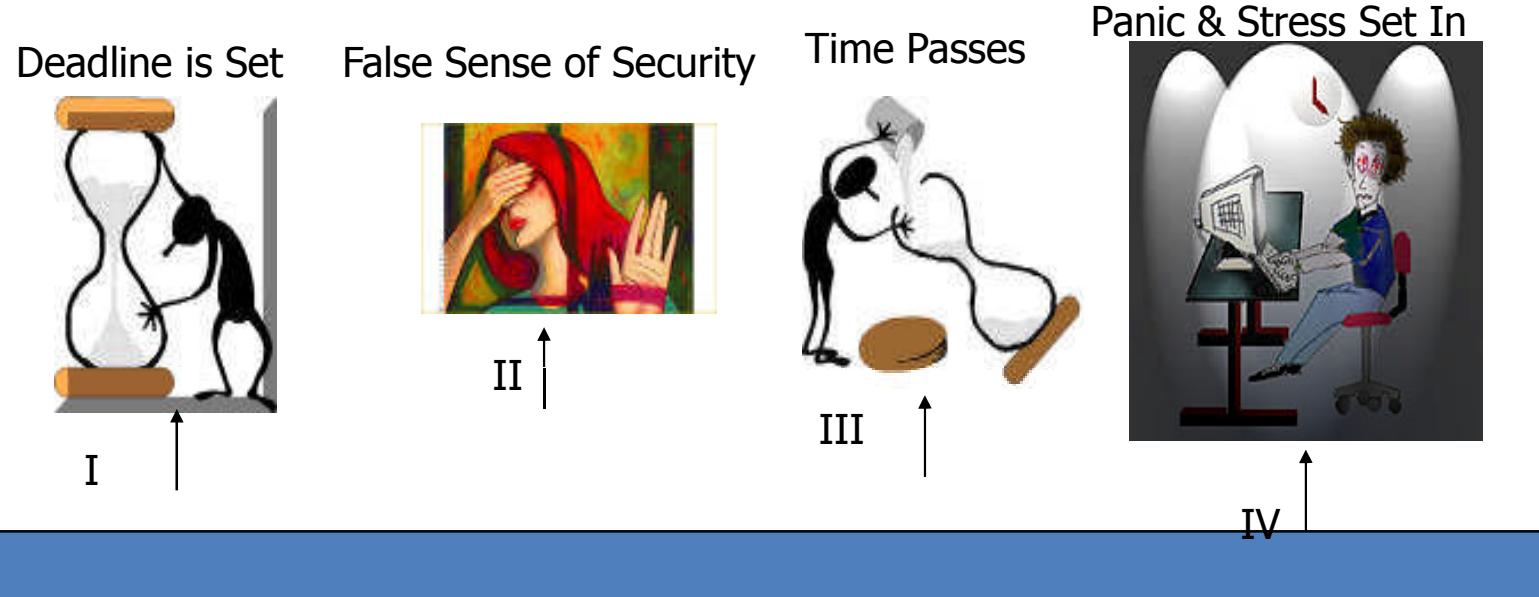
- Procrastination is the grave in which ‘opportunity’ is buried.
- 90% of students procrastinate (William Knaus)
- Two types : Tensed & Relaxed.
- ‘Mood’ is the main culprit
- Laziness & postponement



## Procrastination...What is it?

- Psychological behavior that allows a person to postpone /delay a certain activity or task
- Source of great stress and anxiety for many people
- Time management is not directly related to procrastination

# Cycle Timeline (delayed work).



"There are 2 weeks until the assignment is due."

"I have plenty of time."

"I will get started soon, I only work well under pressure."

"Oh no! The assignment is due tomorrow!"

# Negative Effects of Procrastination

- Stress/Anxiety
- Neglecting health
- Irritability/Bad Mood
- Not achieving one's full potential

# **Four Simple Reasons For Procrastination**

- Difficult→ Task seems too hard
- Time-consuming→ No Free time until the weekend
- Lack of knowledge/skills→
- Don't want to make a mistake
- Fears→ Everyone will know that a mistake is made



**Procrastination ...**  
something we can do right now.

# Four Complex Reasons For Procrastination

## **1. Perfectionism:**

- A. "If you can't do it right, don't do it at all"
- B. May delay starting a project
- C. Creates dissatisfaction & frustration

## **2. Anger/Hostility**

- A. Withhold best efforts out of spite.
- B. Getting Even

## **3. Low Frustration Tolerance**

- A. Feeling overwhelmed
- B. Unfairness

## **4. Self-Downing**

- A. Minimizes skills/abilities
- B. Success attributed to luck
- C. Cannot accept praise for work accomplished

# Steps to Cure Procrastination

- **What you can tell a student**
- Acknowledge that you are postponing a task
- List the reasons of postponement
- Discuss the reasons & list ways to overcome them
- Begin the task immedi



# Helpful Techniques

- Write down your tasks in a visible place with their due dates
- Make the tasks look easy in your mind
- Have a 5 minute plan: start a task for 5 minutes, eventually you will want to complete it
- Break the task into components
- Tackle each component separately
- Modify your environment to encourage accomplishing the task
- Tell your family/friends about your goal; they will motivate you along the way
- REWARD yourself for a job well done!

## Other tips: Do's

- Change your thoughts
- Exercise: Engage in physical activity
- Give yourself some alone time (15 – 30 min. without distractions, music, tv) – take a walk and think.
- Increase alertness by changing your position or stretching for a few minutes (body important thing is movement!)

## Other tips: Don'ts

- Criticize yourself!
- Anticipate catastrophe
- Focus on faults, inadequacies, things left undone

# Pearl S. Buck on Procrastination

- “I don’t wait for moods. I know that I accomplish nothing if I do that. Mind must know that it has got to get down to work”

# What is exam stress/anxiety?

- Exam anxiety can manifest in several ways:
- **Pre-exam stress/anxiety** (intense worry, tension, disturbed sleep, uneasiness and agitation in the lead up to exams)  
or
- **Within-exam stress/anxiety** (feeling anxious in the exam, going blank or being unable to recall information that they know, having difficulty breathing or panicking when they don't know the answer to a question)  
» Or both!

# Reasons for examination anxiety

- Lack of preparation
- Past experiences of blanking out or performing badly in exams
- Focusing too much on outcome
- Focusing too much on how other classmates and friends are doing
- Issues outside of school distracting him from studying for or concentrating on exam

# Reasons for examination anxiety

...

- Lack of confidence or low self-esteem
- Pressure from family or teachers in the past or now
- Having perfectionist expectations of themselves
- General fear of failure
- Fear of getting anxious, in other words, they have developed a ‘fear of fear’.
- Worry that they won’t remember under pressure

# Symptoms of examination anxiety

- Physical
- Behavioural
- Emotional
- Cognitive

# Not all stress/anxiety is bad!

- Good stress/anxiety: Motivates to stay focused on study
- Bad stress/anxiety: Interferes with preparation for exams and presenting what they know
- REMEMBER: Anxiety is unpleasant... but it can't hurt. Accepting it helps them to cope better with it.
- Focus on relaxing recedes anxiety.

## Managing pre-exam anxiety...

- Relaxation
- Healthy lifestyle
- Time management
- Practical preparation
- Getting a good night's sleep the night before
- Getting there in good time
- Visualising success
- Making positive self-statements

## Managing ‘within-exam’ anxiety...

- Relaxation/deep breathing
- Use a mantra
- Focusing
- Thought stopping
- Positive self-statements

# The role of the Cognitive-Affective Behavioural Cycle

- This means that the way we
  - »THINK
- Affects the way we
  - »FEEL
- And this influences how we
  - »BEHAVE

# Unhelpful ways of thinking...

## **Self critical thoughts:**

- ‘I know I’ve messed up’
- ‘I am not ready’
- ‘I must be stupid’
- ‘I can’t do this’
- ‘It’s not going well’

## **Helpless & hopeless thoughts:**

- ‘What’s the use?’
- ‘Why am I doing this?’
- ‘I have no future in this’
- ‘I don’t have enough time’
- ‘There’s too much to cover’

# Role of Medicines

Medicines relieve Anxiety. Medicines are used when:

1. Anxiety is very severe
2. Past history of absence from exams because of extreme anxiety
3. Suicidal attempts due to anxiety +

- ❖ Medicine use is temporary. It is reduced & stopped after exams
- ❖ Meds work best if started at least a month before exams
- ❖ In a case of exam anxiety, relaxation exercises are taught, to be practiced regularly.
- ❖ Thinking errors are identified and rectified.
- ❖ Mock exams are conducted to improve confidence
- ❖ Advice regarding regular sleep and eating habits are given and monitored.

## Poor study skills contribute to

- Poor college performance
- Examination anxiety

**Study skills are never  
taught in any course!**

## **Students and teachers need systematic orientation towards:**

- How to tackle a textbook
- Effective study habits
- How to deal with Exams?
- Reasons for failure in exams.

# How to tackle a Text book?

- Survey
- Question
- Read
- Recall
- Review

# Reading a textbook

- Get a general outline of the book, by looking at the table of contents and syllabus.
- Ask yourself, what questions can you answer after reading the textbook.

# Reading a Chapter

- Read the introduction to a chapter.
- Can you relate the chapter or is it completely new?
- Read the text and diagrams to understand it.  
Look up words that you don't know.
- Recall the main points, write the points in your notebook.
- Go back to the text, and quickly look points you missed.
- Look at the questions at the end of the chapter, and see if you can answer them.

# Effective study habits

- Make a timetable and follow it strictly.
- Study in the same place every time.
- Keep out distractions like TV, magazines, facebook, cell phone, visitors.
- Get written work on time.
- Try to contribute to class discussions.
- Analyse your work, and see what are the weak points.
- Glance at a chapter, to see what is coming in next class.
- Use dictionary or google/wikipedia if you don't understand a point.
- Read a para loudly if it is very important, write it on a sheet of paper and stick it to your wall.
- Write notes in point form (short summary).
- Use ideas from one course in another course.

## Don'ts

- Don't skip tables and graphs while reading.
- Don't try to memorize too much in one sitting.
- Don't do Continuous reading without a break.
- Don't Play music while studying or resting.
- Don't Study late when you are sleepy.
- Don't have irregular food and sleep timinas

# How to deal with exams?

- Examination success depends on planned preparation:
- Apply effective study techniques over time.
- Start now, don't wait till exam time.
- Make time table for revision and rehearse the timetable with mock exams.
- Make a revision group, 3 classmates meet 3 times a week to discuss studies.
- Practice doing what the exams requires.

# How to deal with exams?

Emphasis on recall

Reorganize your ideas

- Discuss with others
- Revise all notes on a topic at one time.
- Revise related topics at one time.
- Criticize your notes, make corrections if needed.
- Rewrite important notes for recall.

# Exam papers

- Tackle old exam papers
- Before writing the answer, note the points you want to answer then elaborate on each point.
- Take mock exams, ask friends/teachers to conduct mock exams.
- No out-guessing the examiner (no tricky questions), just answer the obvious.

# On Exam day

- Don't learn new techniques on exam day.
- Revise as much as possible or relax completely.
- Gather exam equipment, spare pens, eraser, pencil, calculator, batteries, water bottle, hanky, medicine.
- Go to bed early, don't chat to discuss/worry with friends about exam, it is too late to worry now.
- Eat well, don't over-eat, avoid non-veg/fast food, stick to simple foods.
- Get good sleep.

# Technique on the day of exams

- Do a **dry run**: pack your bags, watch with correct time, pens, medicine, travel to the exam room, see your seat, toilet, water, canteen.
- Don't discuss prospects with other students.
- Avoid speculation/gossip about exam paper
- Budget your time.
- Plan your answers before writing.
- Keep priorities clear.
- Write clearly.
- Use extra time to check answers, underline important points, so examiner may not miss them.
- Don't panic if some questions are difficult, answer them till the end, don't leave early.

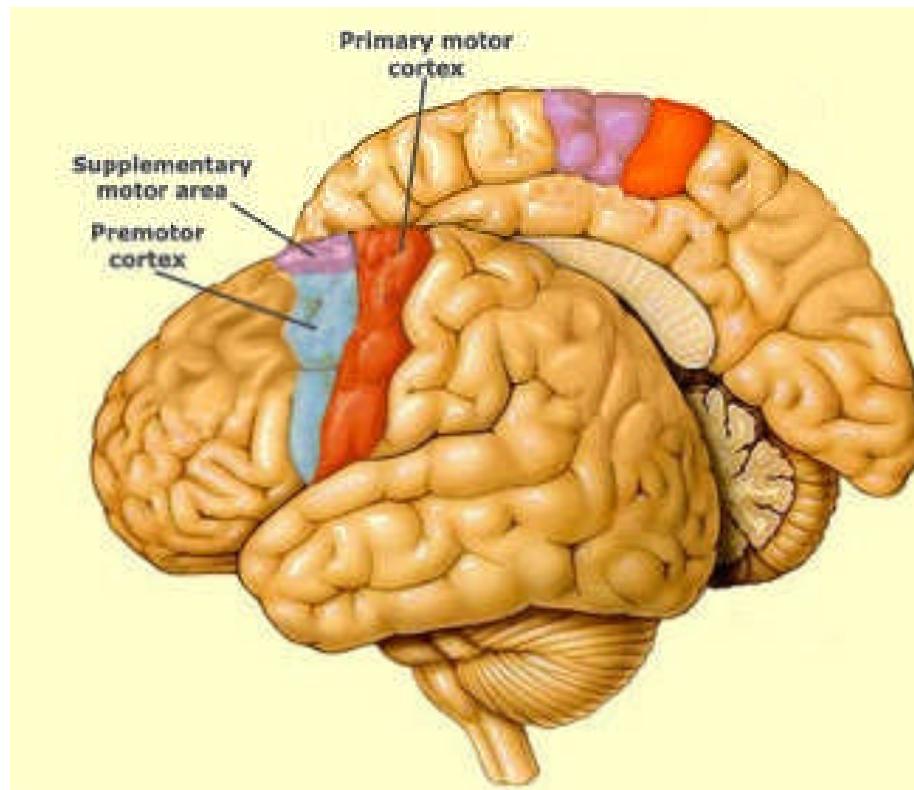
# Reasons for failure in exams

- Irregular attendance
- Thinking extra-curricular activities is part of study for exams.
- Not attentive in class
- No having a clear stable study pattern
- Not having a proper plan for preparing for exams.
- Giving up and blaming the "system" for bad exams.
- Excess exam free and worrying about results.
- Health and emotional problems.
- Bad handwriting
- Low self confidence by comparing with good students.

# ADD: What is Attention Deficit Disorder?

- ADD is a brain-based disorder.
- Characterized by inattention and/or hyperactivity.
- It interferes with one's academic achievement, self-esteem, and professional and personal relationships
- Approximately 1% to 3% of college students are affected
- More common in boys.

Neuro-chemical disconnection between two parts of the frontal lobes inside the brain.  
Causes impairment in the ability to concentrate.



# Inattention

- Difficulty organizing tasks
- Problems with misplacing things needed for tasks
- Becoming easily distracted by external stimuli
- Difficulty remembering daily activities

## **Hyperactivity**

- Experiences restlessness
- Difficulty to remain in one place
- Difficulty to listen to others
- Becomes easily distracted while reading

# Impulsiveness

- Speaks or acts without considering the consequence
- Talks excessively
- Has difficulty taking turns
- Has need for high stimulus activity

# Problems of ADD students in College

- ADD student requires three times as much study time as the average student
- Performance usually does not match knowledge/ability in ADD students
- Have problems in paper- pencil examination
- Have disruptive behaviour in class

# Treatment

- See counselor at Baliga hospital, Udupi.
- Stimulants are considered

# Non-medication options

- Coaching
  - Organizational & study skills
- Psychotherapy
  - Especially helpful for self-esteem
- Diet
  - Less junk food; more omega 3.
- Exercise

# Modification in tests

- If possible don't have 'timed' tests
- Should not write more than one exam per day
- Oral exams and practical demonstration

# **Commonly abused substances and impact on health and role performance**



*Dr. P.V. Bhandary*  
Psychiatrist & Director  
Dr. A.V. Baliga memorial Hospital  
Udupi

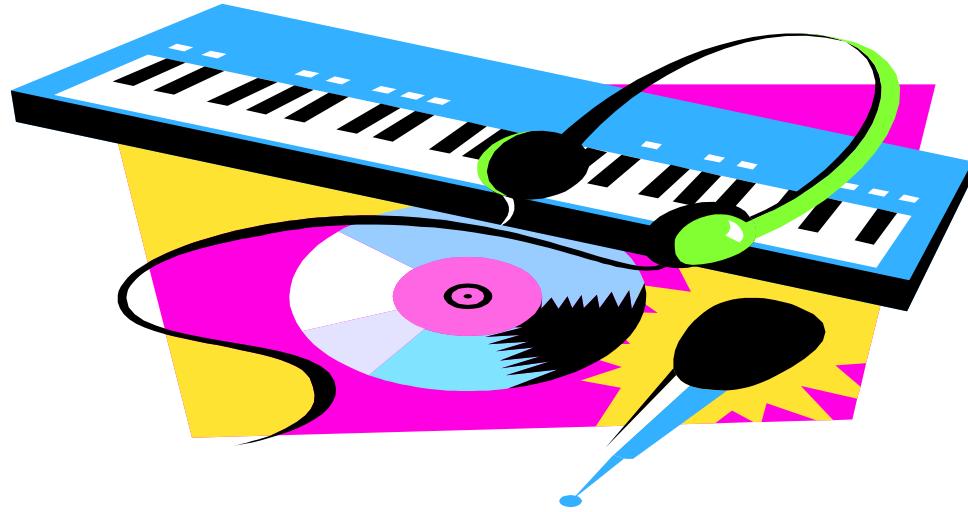
# **The marathon runner who finds walking difficult**



# **The whiz-kid who ends up as a college dropout**



# The keyboard king who no longer cares



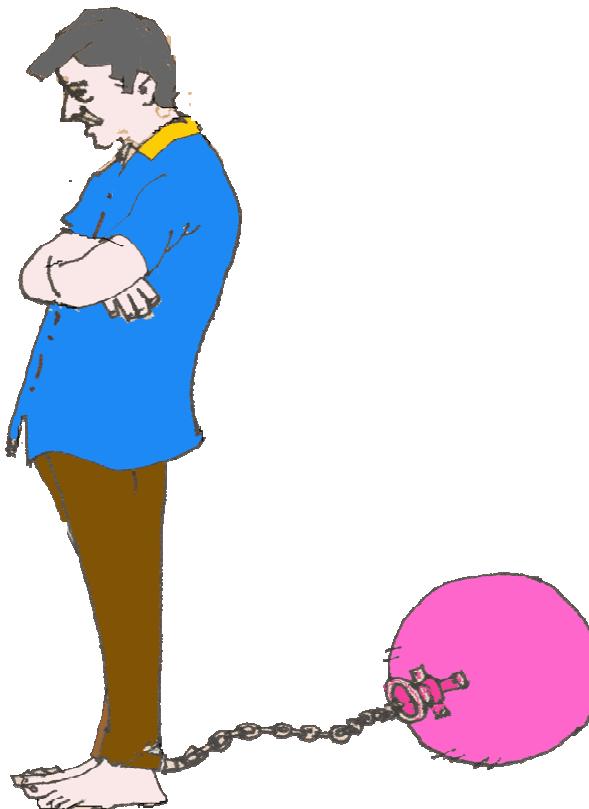
**All of them started off casually and  
ended up addicted**

Addiction can happen to anybody!

Will power, intelligence or personality  
traits have nothing to do with it!

# Drug addiction

- ➔ Tolerance
- ➔ Psychological dependence
  
- ➔ Physical dependence
- ➔ Withdrawal symptoms



# Why do they start

- relief from boredom
- weight control
- coping with stress
- avoiding negative emotional states
- conformity
- social reasons
- to avoid withdrawal

# **Reasons for Drug and Alcohol use**

- It makes them feel good
- Thrill of doing the illegal/illicit
- Available models
- “Self-medication”

# **Special Concerns for college students**

- Suicide
- Drowning
- Auto accidents
- Crime and violence
- Unplanned sex
- Poor school performance
- Trauma, injury, and falls

## **What are the drugs which are commonly abused?**

- Tobacco - cigarettes and 'zarda'
- Alcohol - beer, wine and hard liquors
- Cannabis - ganja
- Brown sugar - heroin
- Medically used prescription drugs

# Smoking



# Tobacco

- A mix of 3000 dangerous chemicals
  - ❖ There is no safe level of tobacco use



# **Tobacco and Its Effects**

- **Tar and Carbon Monoxide**
  - Tar is a thick, brownish sludge, that contains various carcinogenic (cancer-causing) agents.
  - Tar accounts for about 8 percent of tobacco smoke.
  - 92 percent of the remaining tobacco smoke consists of various gases.
  - The most dangerous gas is carbon monoxide, which is 800 times higher than the level considered safe
  - Carbon monoxide causes oxygen deprivation in many body tissues.

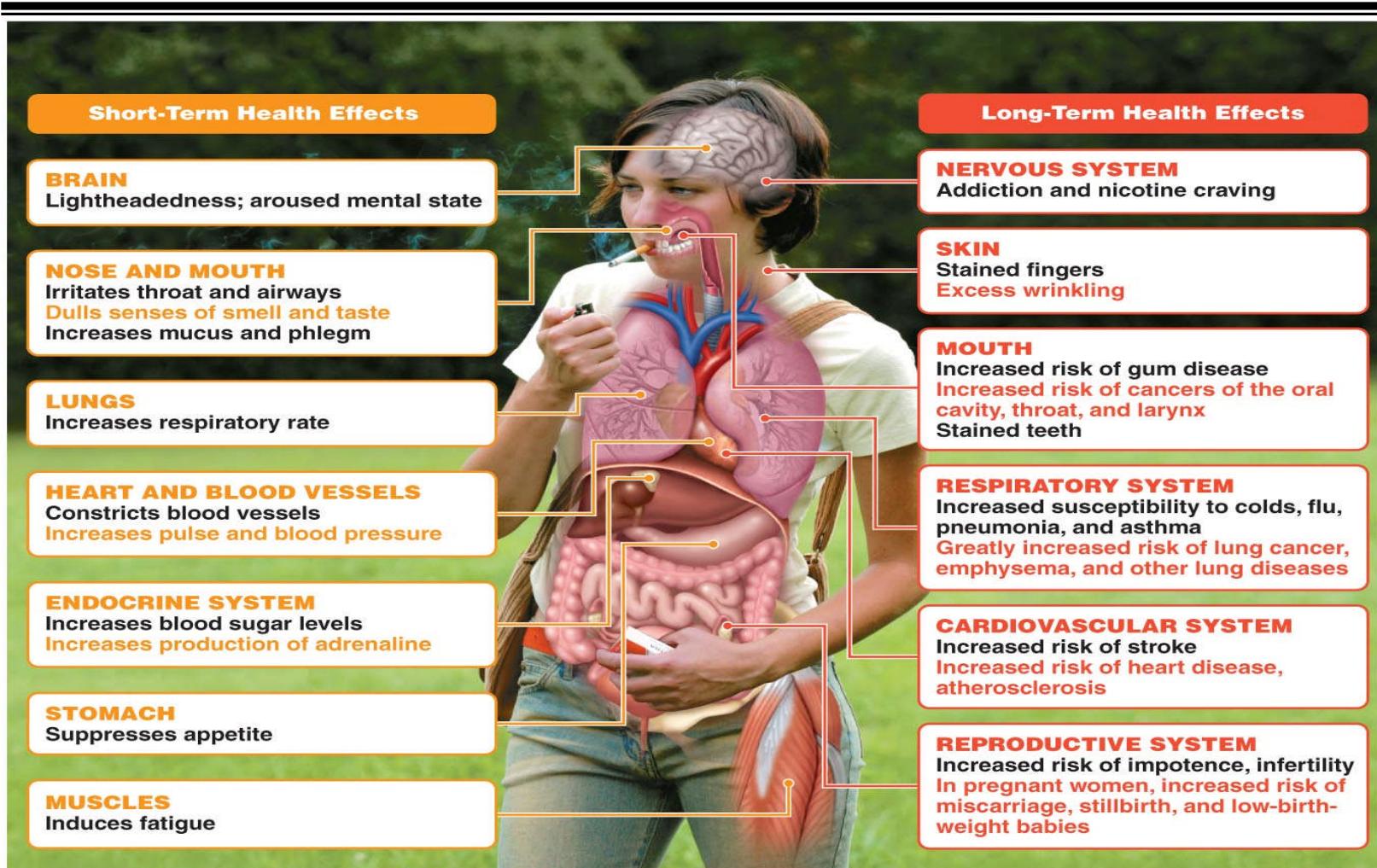
# Tobacco and Its Effects

- **Tobacco Products**

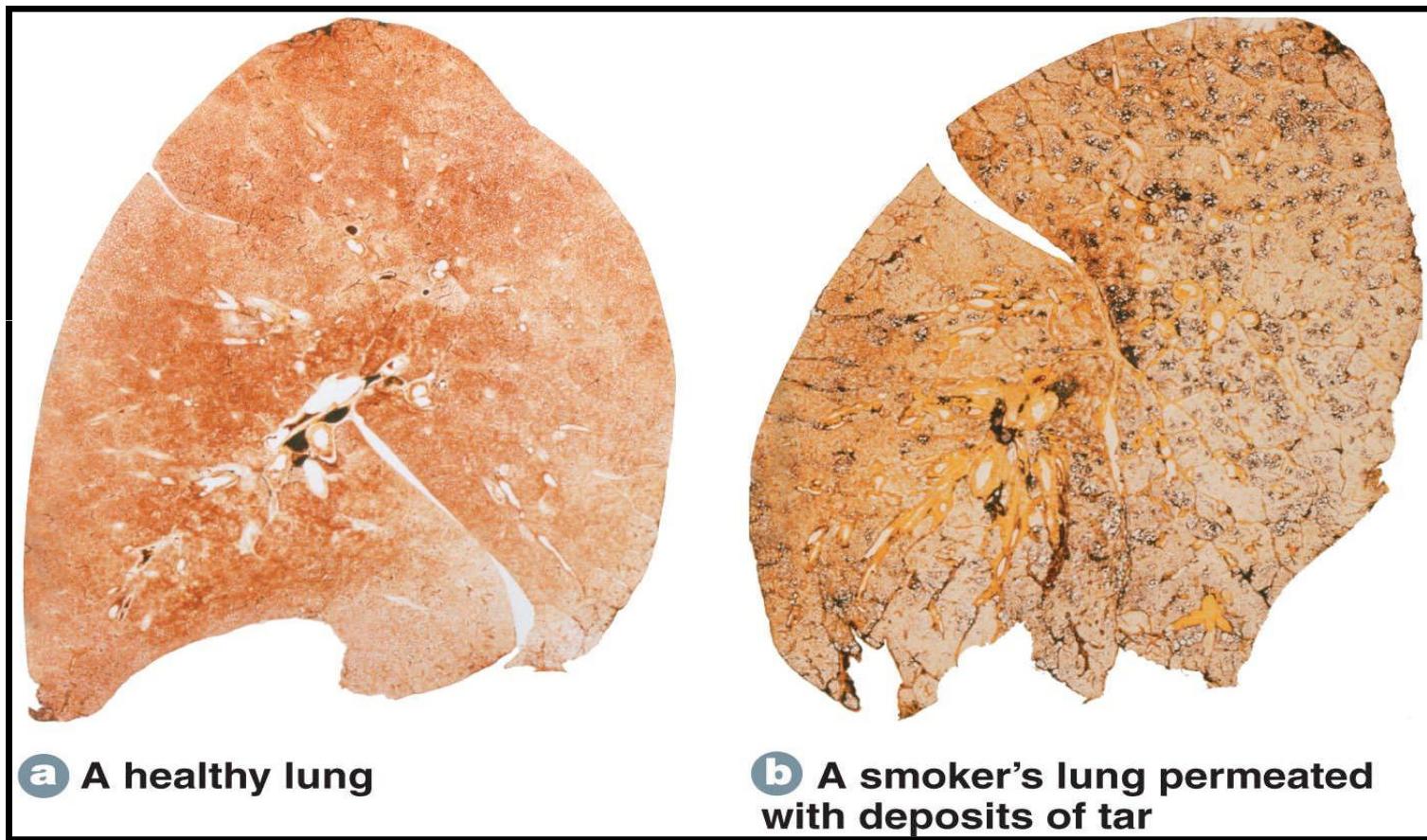
- Cigarettes
- Cigars
- Pipe
- Beedies (hand-rolled, flavored cigarettes)
- Spit (smokeless) tobacco
  - Chewing tobacco
  - Dipping
  - Snuff



# Effects of Smoking on the Body and Health



# Comparison of Cross Sections of Healthy Lung with a Smoker's lung



## What Is Smokeless Tobacco?

- A product consisting of tobacco or a tobacco blend that is chewed, inhaled, or sucked on rather than smoked.
- Available in two forms:
  - **Chewing tobacco.** This type of smokeless tobacco comes in loose leaf, plugs, or twists. As the name suggests, it's chewed.
  - **Snuff.** This product is available dry or moist, in loose leaf or in pouches that look like tea bags. A pinch of snuff may be placed between the cheek and the gum or inhaled into the nostrils.



# Using Smokeless Tobacco Causes Health Problems

- The most serious of these problems is an increased risk of oral cancer.
- Your body actually absorbs 28 cancer-causing substances in smokeless tobacco.
  - Arsenic
  - Formaldehyde
- Most common forms of oral cancer caused from tobacco use include:
  - Mouth
  - Lips
  - Tongue
  - Throat
  - Nose and
  - Larynx (voice box)

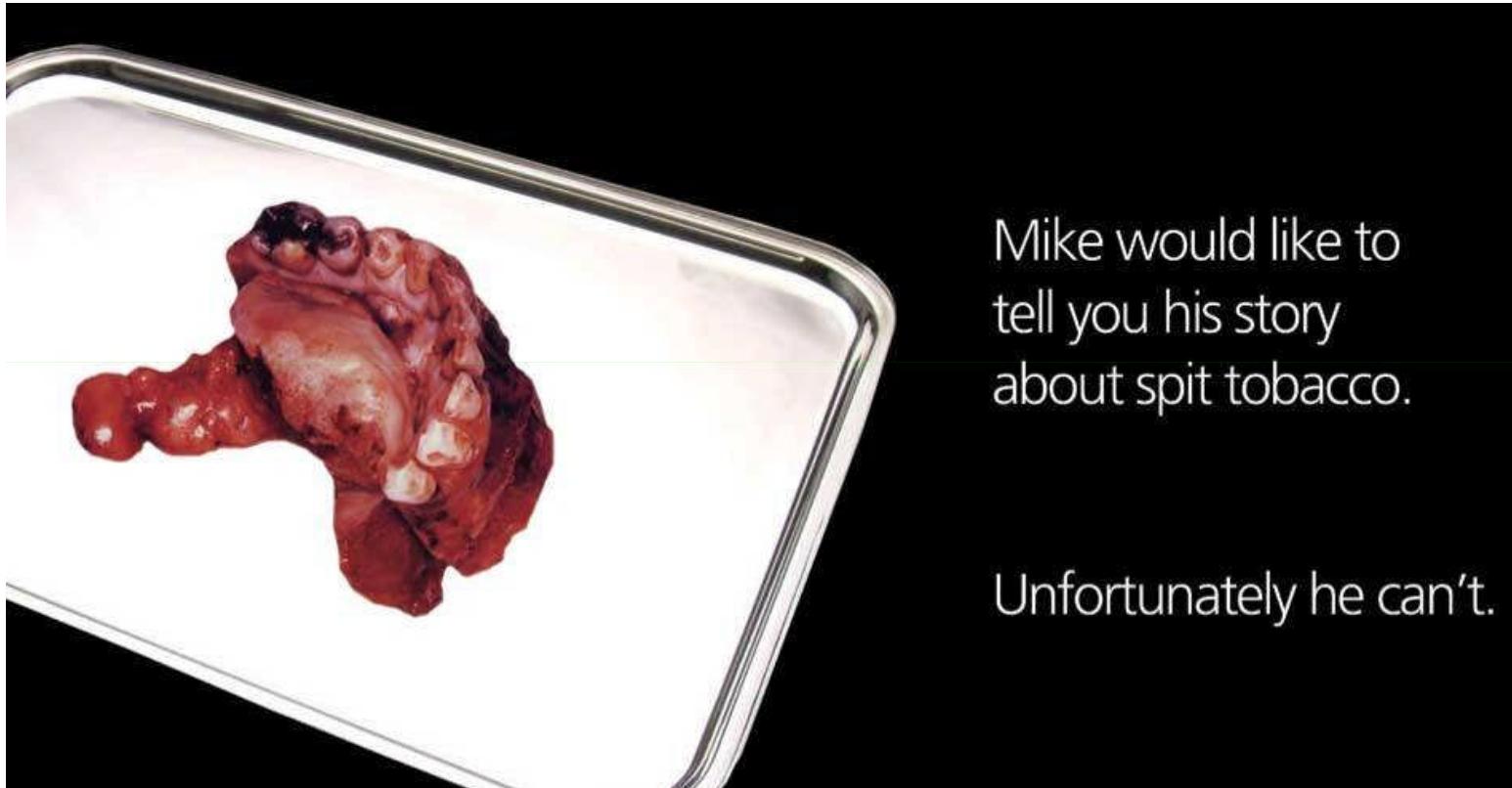


# Oral Cancer

- One of the most difficult cancers to treat.
- It spreads quickly.
- Surgery is often needed.
  - Disfiguring
- On average, only half of those with the disease will survive more than five years.
  - 30,000 new cases each year
  - 8,000 will die each year



# Mike and his untold tobacco story

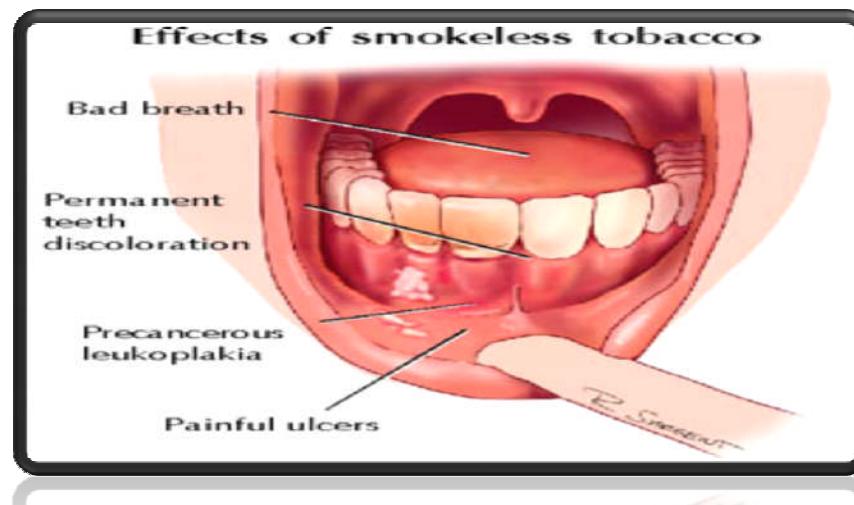


Mike would like to  
tell you his story  
about spit tobacco.

Unfortunately he can't.

# Effects of Smokeless Tobacco Use

- **Bad breath:** The smell of smokeless tobacco in your mouth is not a good smell. While you may have become used to the smell and don't mind it, others around you have not; they think it stinks, even if they don't tell you!
- **Spitting/drooling:** Because of the smokeless tobacco, your mouth makes extra saliva, and you need to spit out the tobacco juice from time to time. If you don't have a place to spit smokeless tobacco, you run the risk of getting smokeless tobacco and tobacco juice on your face and on your clothes. And that's not a good-looking sight!
- **Tooth stains:** While not all smokeless tobacco users get bad tooth stains, many have stained teeth in the area where they hold smokeless tobacco in their mouth. And you can't brush the stain off with your toothbrush!
- **Leukoplakia:** 75 percent of all daily users get white patches in their mouth that can turn into cancer!
- **Gum recession:** It's ugly; it increases your risk of cavities and it makes your teeth sensitive.



## **Smokeless Tobacco Use Also Causes**

- High Blood Pressure
- Heart Disease
- Ulcers: When people swallow tobacco juice, it can irritate their stomach and contribute to ulcers.



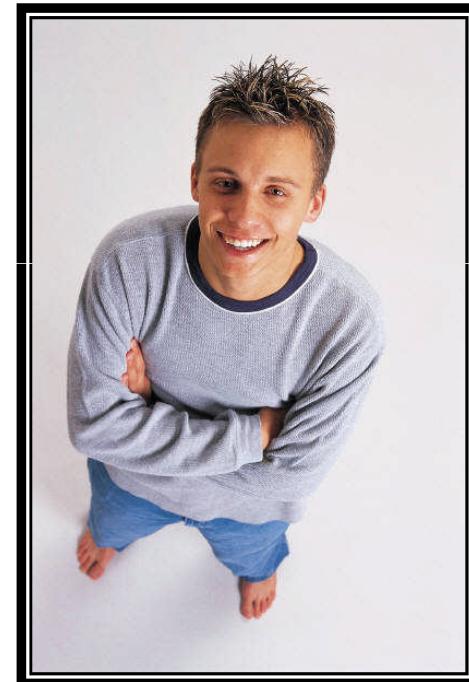
## **Smokeless Tobacco Is Hard to Quit**

- It gives you a high dose of nicotine.
  - One can of snuff gives you as much nicotine as 60 cigarettes!
  - If you chew 8-10 times a day, you are exposed to the same amount of nicotine as people who smoke 30-40 cigarettes a day.



# Immediate Benefits of Quitting

- In addition to health benefits:
  - Girls will like you better!
  - You'll have better breath, healthier gums, and whiter teeth.
  - It will save you money.
    - Multiply how much money you spend on tobacco every day by 365 (days per year).
    - Now multiply that by the number of years you have been using tobacco.
    - Multiply the cost per year by 10 (for the upcoming 10 years), and ask yourself what you would rather do with that much money.
  - You will be a good role model to others.



# Alcohol

- Alcohol is no health drink
- It was a preservative in fruit juice before fridge.
- Alcohol is a depressant of CNS (central nervous system).
- 20% of all drinkers get addicted.



# ALCOHOL



## **Know the Facts About Alcohol!**

- Alcohol is a contributing factor in at least half of all murders, suicides, and car accidents.
- Heavy drinking along with drunk driving increases the chances of serious injury or death.

Question: Why do drinks company also sell soda water?

## Cont..

- Heavy drinking along with sex increases the chances of getting a sexually transmitted disease (STD) and HIV or AIDS.
- Heavy drinking is also linked with physical fighting, destroyed property, college and job problems, and trouble with law enforcement authorities.

## It won't affect me...

- Drinking alcohol leads to:
  - Loss of coordination
  - Poor judgment
  - Slowed reflexes
  - Distorted vision
  - Memory lapses
  - Blackouts
  - Lowered inhibitions
  - Impaired judgment



# Drinking in Movies / Real life



# Effects of Alcohol on the Body

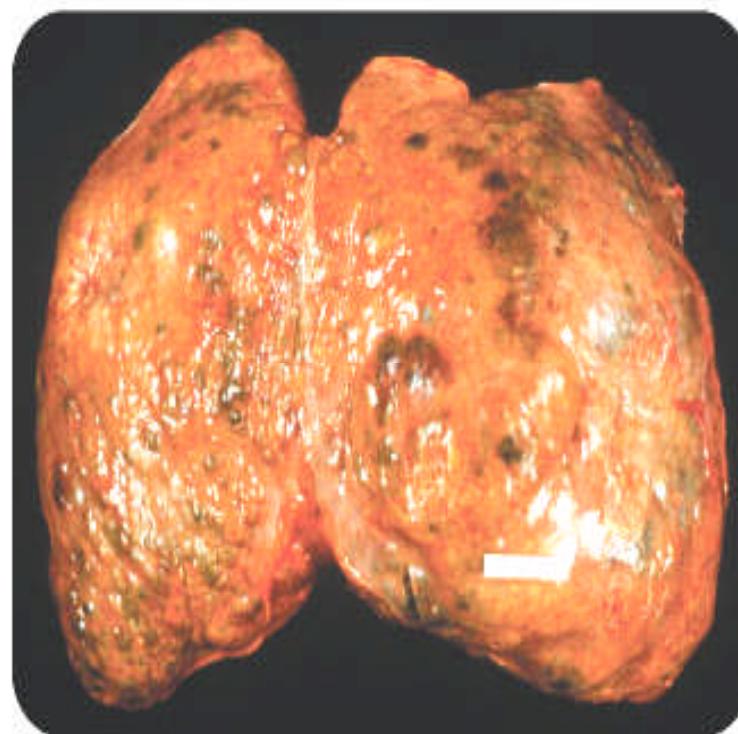


# Normal Liver and Liver with Cirrhosis



A normal liver

© 2010 Pearson Education, Inc.



A liver with cirrhosis

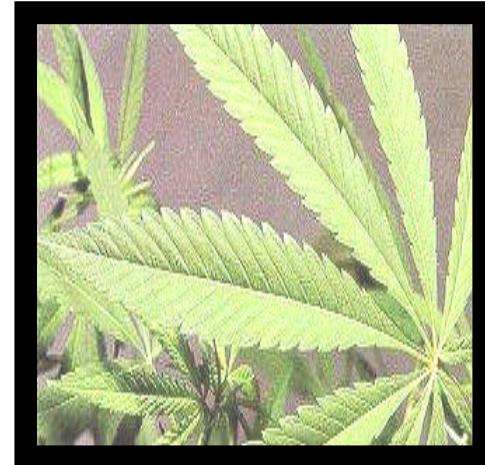
# Who's drinking?

- 62.5 million alcohol users estimated in India.
- Sale of alcohol has been growing steadily at 6% and is estimated to grow at the rate of 8% per year.
- People drink at an earlier age than previously . The mean age of initiation of alcohol use has decreased from 23.36 years in 1950 to 1960 to 19.45 years in 1980 to 1990.
- Profile of clients in addiction treatment centers in 23 states (including states with prohibition) showed that alcohol was the first or second major drug of abuse in all except one state.

# Drunkards



# Ganja



- Ganja is no “cool” drug
- It cannot turn a person into a creative genius
- Ganja users are at great risk of developing psychiatric problems
- Ganja is also an addictive drug

# CANNABIS

- ❖ Ganja / Marijuana
- ❖ Hashish / Charas
- ❖ Hashish oil
- ❖ Bhang



Common mode of Intake:

- ❖ Smoking.

## **SHORT TERM EFFECTS**

- ◊ Mild euphoria (happiness).
- ◊ Lowering of inhibitions (bravery).
- ◊ Dilation of blood vessels
- ◊ Increased auditory and visual acuity
- ◊ Sense of smell, touch and taste are often enhanced
- ◊ Altered sense of time perception
- ◊ Impaired short-term memory
- ◊ Impairment of ability to perform complex motor tasks

# LONG-TERM EFFECTS

- ◊ Decreased cognitive ability
- ◊ A motivational syndrome
  - ◊ Psychosis
  - ◊ Respiratory problems
  - ◊ Sterility / impotence
  - ◊ In women abusers, fetal damage can occur



# **Tolerance and *psychological dependence* develop**

## **Withdrawal symptoms**

- ➔ Sleep disturbances
- ➔ Loss of appetite, irritability
- ➔ Tremors
- ➔ Depression or psychotic symptoms may become prominent



# NARCOTIC ANALGESICS

Pain killing or pain relieving drugs with opium like effects

**Natural sources** : Opium

- morphine
- codeine



**Semi synthetic** : Heroin (brown sugar)

**Synthetic** : Buprenorphine (tidigesic)

- Methadone
- Pentazocine



## Mode of intake

Opium – oral, inhalation

Morphine – injection

Codeine – oral (tablets and cough syrups)

Heroin – injection, inhalation, chasing

Buprenorphine – oral, injection



# At a bus stop in Mumbai



## **SHORT - TERM EFFECTS OF NARCOTIC ANALGESICS**

- ❖ Euphoria
- ❖ Thought process impairment, drowsiness, apathy
- ❖ Freedom from pain
- ❖ Overdose of heroin can cause convulsions, coma and death

## LONG-TERM EFFECTS

- Mood instability
- Reduced libido
- Constipation
- Respiratory impairments
- Physical deterioration
- ◊ Infections like serum hepatitis and HIV can occur among IV users
- ◊ In female abusers, menstrual irregularity and fetal addiction / abnormality

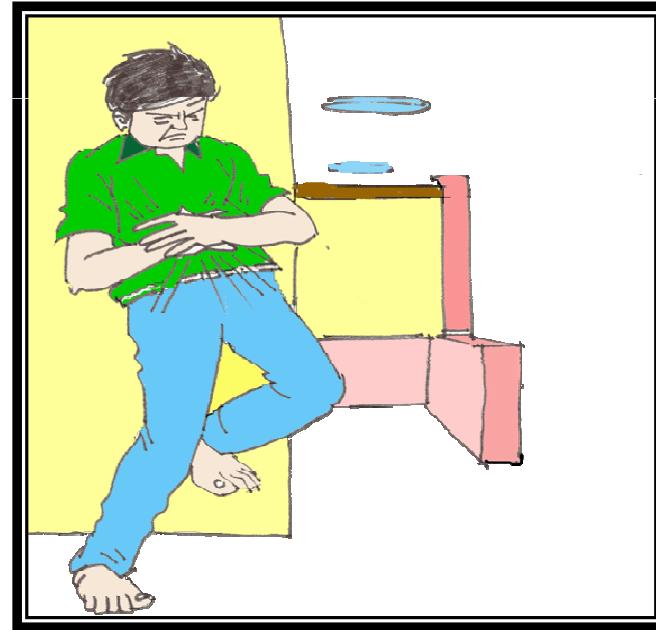


# Tolerance and dependence develop

## Withdrawal symptoms

- Feeling of unpleasantness
- Severe pain

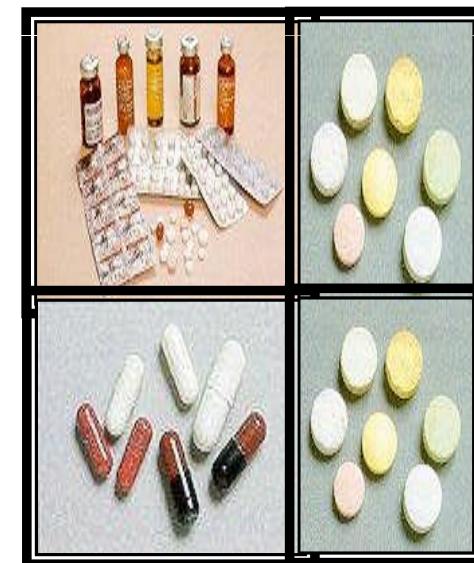
- Diarrhea
- Dilation of pupils
- Insomnia
- Hallucinations



# DEPRESSANTS

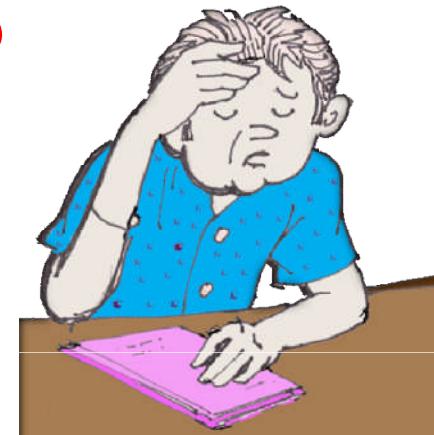
Drugs which depress or slow down the functions of the central nervous system

- ❖ Sedative-hypnotics
  - ➔ Barbiturates
  - ➔ Benzodiazepines
- ❖ Alcohol



# **SHORT-TERM EFFECTS OF DEPRESSANTS**

- ◊ Relief from anxiety and tension
- ◊ Euphoria
- ◊ Lowering of inhibitions
- ◊ Poor motor coordination
- ◊ Impaired concentration and judgment
  - ◊ Slurred speech and blurred vision
  - ◊ Sedation, sleep with larger doses



# LONG-TERM EFFECTS OF DEPRESSANTS

- ↓ Depression
- ↓ Chronic fatigue
- ↓ Respiratory impairments
- ↓ Impaired sexual function
- ↓ Decreased attention span
- ↓ Poor memory and judgement
- ↓ Chronic sleep problems



## Tolerance and dependence

- ➔ Tolerance does not develop uniformly
- ➔ Cross tolerance can develop
- ➔ Physical and psychological dependence develops

## Withdrawal symptoms

- ➔ Insomnia
- ➔ Weakness and nausea
- ➔ Hallucinations
- ➔ Convulsions
- ➔ Delirium tremens

# **STIMULANTS**

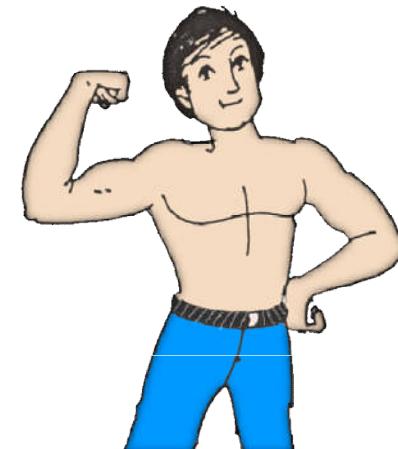
**Drugs which excite or speed up  
the central nervous system**

- ➔ Amphetamines
- ➔ Cocaine



# **SHORT-TERM EFFECTS OF STIMULANTS**

- ◊ A heightened feeling of well being
- ◊ A sense of super-abundant energy
- ◊ Increased motor and speech activity
- ◊ Suppression of appetite
- ◊ Increased wakefulness



# LONG-TERM EFFECTS

- Chronic sleep problem
- Poor appetite
- Rapid and irregular heart beat
- Mood swings
- `Amphetamine psychosis' may occur

# Tolerance and dependence develop

## Withdrawal symptoms

- ➔ No major physiological disruptions
  - ➔ Extreme fatigue
  - ➔ Disturbed sleep
  - ➔ Voracious appetite
  - ➔ Moderate to severe depression

# HALLUCCINOGENS

Hallucinogens are drugs which affect perception, emotions and mental processes

1. LSD (Lysergic acid diethylamide)
2. PCP (Phencyclidine)
3. Mescaline
4. Psilocybin

# **SHORT-TERM EFFECTS OF HALLUCINOGENS**

- ◊ Alterations of mood
- ◊ Distortion of the sense of direction, distance and time
- ◊ ‘Pseudo’ hallucinations
- ◊ Synesthesia – melding of two sensory modalities
- ◊ Feelings of depersonalisation

## LONG-TERM EFFECTS

- Flash back or spontaneous recurrence of on LSD experience can occur.
- Amotivational syndrome (*low inspiration to participate in social activities*)
- LSD precipitated psychosis (*loss of contact with reality*)

- **Tolerance and dependence**

- ➔ Tolerance develops rapidly
- ➔ Withdrawal symptoms are not reported

# **VOLATILE SOLVENTS**

- ◊ Volatile hydrocarbons
- ◊ Petroleum derivatives

# People affected



# Inhalants: Pharmokinetics

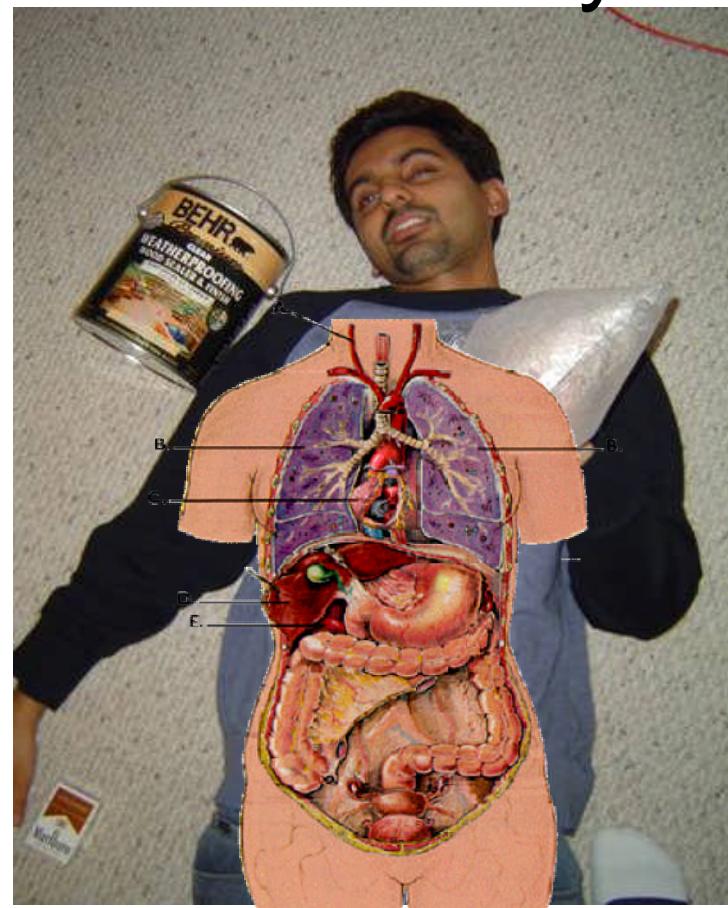
- Route of Ingestion:
  - Inhaled, either directly or by pouring/spraying into a bag or onto a cloth
- Metabolism:
  - Liver
- Distribution:
  - Some leave the body quickly others are absorbed by fatty tissues in the brain and nervous system.
- Half life:
  - Short half-life: Varies among Inhalants, typically 1-5 mins



# Inhalants: Effects on the Body

- A. Blood- inhalant chemicals will block the oxygen carrying capacity of blood
- B. Lungs- repeated use causes damage
- C. Heart- results in “Sudden Sniffing Death Syndrome”
- D. Liver- components of aerosol and paints will damage the liver
- E. Kidney- Toluene (inhalant substance) will damage the kidney’s ability to control the amount of acid in the blood, may result in kidney stones

[www.inhalants.org/damage.html](http://www.inhalants.org/damage.html)



# Treatment

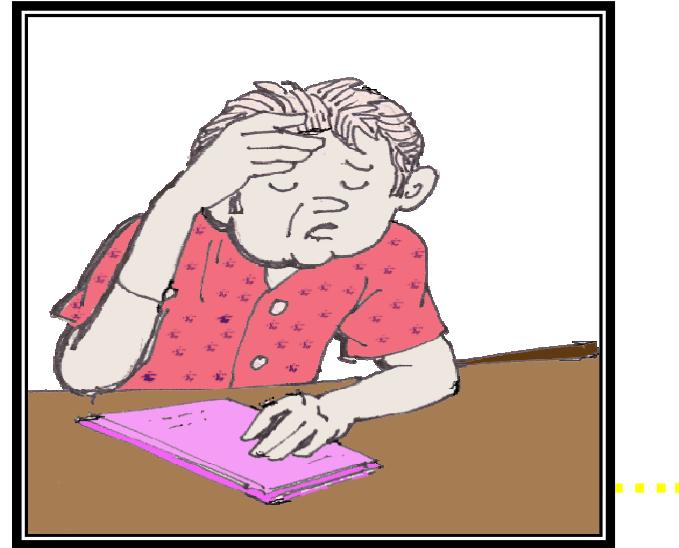
- Difficult to treat
  - Abuse coincides with social, family, financial, or behavior problems
  - Few go voluntarily
- Cognitive impairment may last for months
- Length of treatment may go up to two years

## **OTHER DRUGS OF ABUSE**

- ◊ Muscle relaxants
- ◊ Analgesics
- ◊ Anti-histamines
- ◊ Anti-emetics
- ◊ Anti-depressants/anti-psychotics

## What can drugs do to a smart, healthy, enthusiastic youngster?

- Affect academic performance
- Cause physical deterioration



# Problems

- Hamper personality development
- Increase violence, accidents and high risk behaviour
- Lead to entanglement in a messy lawsuit



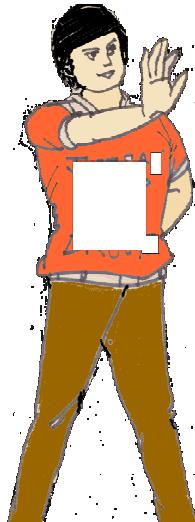
## **What can teachers do?**

- Get the facts right
- Express drug free messages openly
- Stay drug free and take pride in it
- Join anti-drug activities

***You make the difference !***

# How to stay drug free – Avoid it

- If drug/alcohol use is being planned, suggest an alternative activity.
- Don't attend dinners/parties with booze/smoking.
- Giving reasons for your decision may prolong the conversation – beware



Just  
say NO





# Stay drug free – Say NO

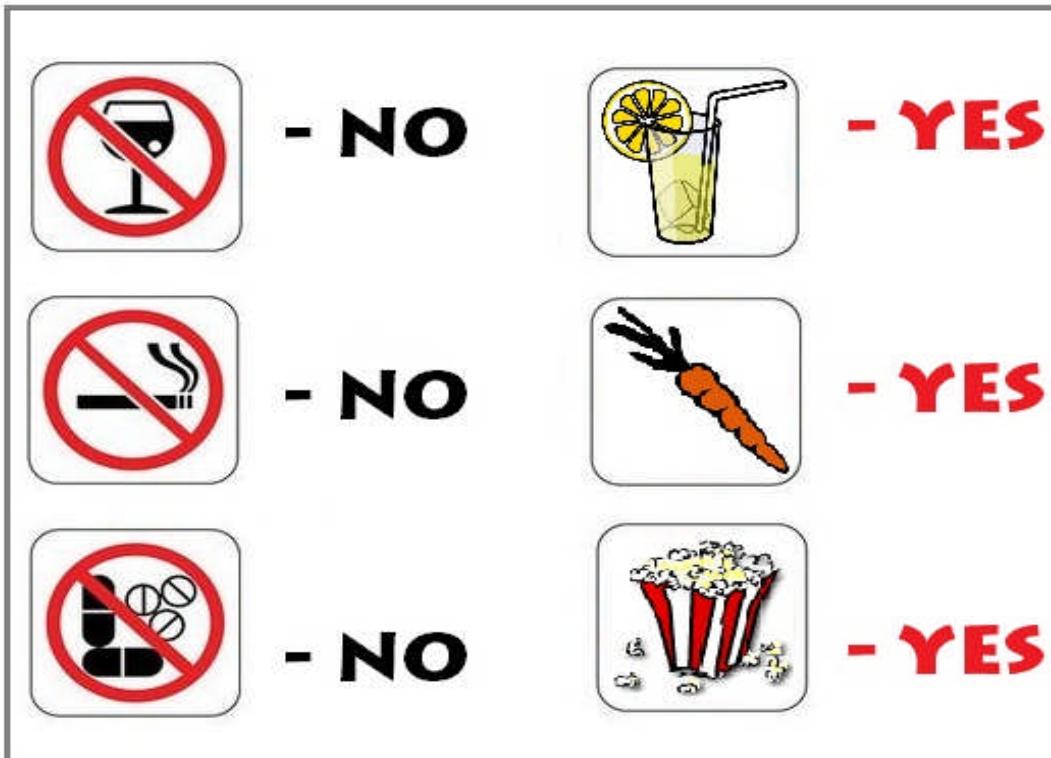
When someone offers drugs/alcohol:

- Look him/her in the eye
- Say "**NO**" clearly and emphatically and repeatedly.
- Walk away if he/she persists.
- Stick to your decision to say "**NO**"

## **How to stay drug free – No bad company**

- Change room-mates ASAP if your roommate is bringing/taking drugs.
- Beware of bad company, and drug dealers, they will someday try to recover payments for what your friend took.
- Change friends, if your friends keeps bad company.

# Say No to Drugs



## **What do you do if your student is addicted?**

Get help - professional help

*Recovery from addiction is definitely  
possible*

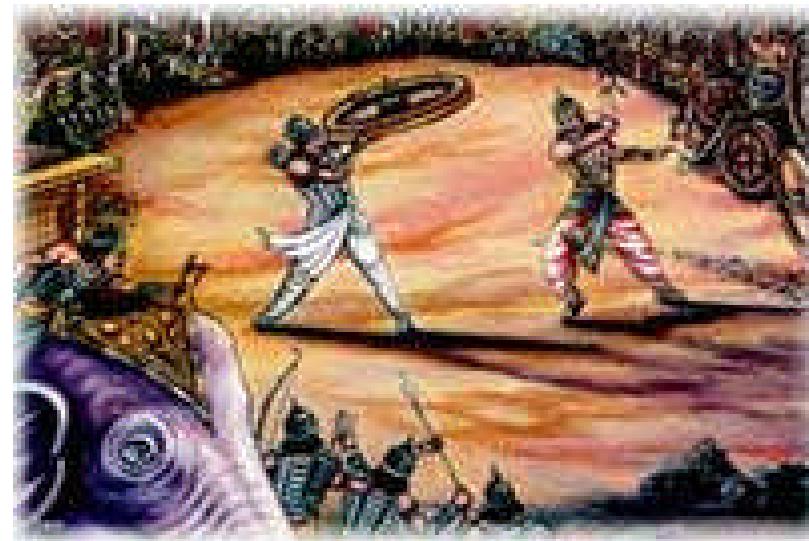
But it is a complex process that requires  
the support of many others.

## **Role of Colleges in substance abuse prevention**

- Information dissemination approaches, which may include the use of fear or moral appeals.
- Providing variable alternative to drug abuse like good recreational facilities, multi gym and good library of varied interest
- Improve resistance skills by increasing awareness of negative consequences of drug use
- Teaching life skills to college students

# Constant battle in the society

- Big business.
- Read about the "Opium Wars" in Wikipedia.



# **Suicidal, High risk Behaviours and Emergencies**

***Dr. P.V. Bhandary***

Psychiatrist & Director

Dr. A.V. Baliga memorial Hosptial  
Udupi

# Today's discussion

- Suicide attempts
- Aggression

# **Suicide**

- ❖ Act of intentionally taking one's own life
- ❖ Leading cause of premature death, especially among youth.
- ❖ One in every three suicidal victims is a youth
- ❖ Many studies have shown that at least 10% of the adolescents report attempting suicide at some time

**SKS- Sheela**

# Myths and Facts about suicide

- **Myth:** Those who talk about attempting suicide are less likely to act.
- **Fact:** People who threaten to take their lives are more prone to attempt it than those who do not. Hence do not take these as empty threats and challenge them.

# Myths and Facts about suicide

- **Myth:** Those who have attempted once learn from their mistakes and are less likely to attempt.
- **Fact:** Those with previous unsuccessful suicide attempts are more likely to attempt than others in the future.

# Myths and Facts about suicide

- **Myth:** Suicidal attempts in families will dissuade relatives from doing the same when in emotional turmoil.
- **Fact:** Suicidal behaviour can be seen in families across generations as depression can run in families and is genetic.

# Myths and Facts about suicide

- **Myth:** Only those who are mentally ill are prone to suicide.
- **Fact:** Those who are mentally ill are more prone to suicide but those without any mental illness may also be driven to it following situations such as a sudden financial loss, sudden discovery of a fatal illness, failure in exams, etc.

# Myths and Facts about suicide

- **Myth:** Strong minds and confident people never attempt suicide. Only weak minds do.
- **Fact:** Strong minds **do not** exist. Each one of us can suffer from sadness and depression, and attempt suicide, though some are definitely more vulnerable than others.

# Myths and Facts about suicide

- **Myth:** Only intelligent people attempt suicide; whereas religious people do not.
- **Fact:** Anyone can attempt suicide irrespective of their intelligence or affinity to god.

# Myths and Facts about suicide

- **Myth:** A suicide attempt is aimed at manipulating/threatening others and should be punished harshly.
- **Fact:** An act of self-harm can be a cry for help and should be tackled sensitively.

# Myths and Facts about suicide

- **Myth:** A weak attempt of suicide should be treated at home and secrecy should be maintained to preserve the self-esteem of the person
- **Fact:** A medical doctor should treat all attempts at a hospital with the help of a psychiatrist /counsellor. The details of the attempt need to be verified for an appropriate treatment.

# **Attempted suicide, Deliberate self-harm**

- Behaviors through which people inflict harm upon themselves, with non-fatal outcome.
- Suicidal attempts are approximately 25 times more frequent than suicidal deaths.
- Half of all who commit suicide would have attempted suicide at least once previously.
- 15-25 % of the suicidal attempters will attempt suicide again within a year.

# Common causes of suicide

- **Social:** financial problems, poverty, life events, loss in social status, humiliation SKS- Letter from Principal
- **Cultural:** group belief (terrorist), religious belief
- **Family discord:** family discord, loss of loved one
- **Environmental:** stress, academic pressure, exam failures, physical illness
- **Psychological:** low self esteem, impulsivity, pleasure seeking
- **Role modeling:** media, imitation of other behaviors
- **Biological:** brain injury, decreased serotonin, and hereditary
- **Physical illness:** like HIV, cancer, sudden loss of vision or limb, any illness which causes social stigma.
- **Mental illness:** depression, substance use, psychosis, personality disorders

# **People at risk for having suicidal behavior:**

- Younger age
- Ongoing and /or recent life events (like loss of relationship, failure in examination, financial loss)
- Past history of suicidal attempt, Loss of social status / reputation in the society.
- Family history of suicide, Poor family support, broken family, physical abuse by parents, feeling neglected by parents and loss of loved ones
- Loss of romantic relationship or discord in a relationship
- Chronic medical/surgical illness like HIV, cancer

# **People at risk for having suicidal behavior- cont...**

- Mental illness like-depression, substance use, anti-social behavior, psychosis Evolving personality disorders
- Poor social integration (lack of confiding relationships/long standing relationship problems)
- Poor problem solving skills
- Aggression, hopelessness, impulsivity, sudden change in behavior, sudden decline in academic performance, conduct problems like truancy/ stealing/ lying

# **Acute Precipitants**

- The most common precipitating factors for suicide in adolescents are
- Humiliation by their parents/friends/relatives/teachers.
- Discipline for misdeeds in front of others
- Exam failure
- Arguments or fights with the loved ones and the loss of romantic relationships
- Severe financial constraints.

# Management of suicide attempt

- Immediate hospital referral to save the person's life.
- Alert the higher authorities of the college immediately.
- Inform family members immediately

# **Dealing with the person who has attempted suicide**

- Never scold a person who has attempted suicide. ( Prof. dealing with suicidal patient )
- Avoid giving lecture/advice on value of life.
- Allow him to talk and express his feeling by active listening
- Ask for any plans of completing suicide or hurting himself in near future
- Reducing the availability of means/modes of committing suicide
- Try to help him in all possible ways, knowing your limitations

# **Dealing with the person who has attempted suicide – cont..**

- Do not challenge a person who had attempted.
- Do not leave him alone at any cost.
- Do not give false reassurances.
- Do not handle these situations alone. Involve college authorities, survivor's family members and friends. Try to get help from all possible means.
- Take help from mental health professionals to deal with such situations.

# **How to treat a suicide attempter after survival**

- Treat him as a normal student
- Encourage other students to interact with him
- Help him in coping with his studies
- Assign a teacher to that students so that he can discuss with teacher about his thoughts, feelings and problems
- Develop a contract with the student that he will not attempt again
- Communicate your concerns and support
- Student should be clearly told that he can seek help without any barrier
- Seek help from mental health professionals.

# **Dealing with a completed suicide in a college**

- A completed suicide can have severe psychological impact on his friends and the staff of the college.
- Avoid rumors
- Don't describe the suicidal event in detail
- Do not glorify the suicidal act.

# **Dealing with a completed suicide in a college ... cont..**

- It can even set an example for other students as a method to tackle their problems
- Severely affected students (close friends) of the deceased should be allowed to ventilate and if required counseling services should be offered.
- Help family members to cope with the situation.
- Seminars about suicide, help seeking behaviour, available services, problem solving techniques and depression. Should be conducted at that time

# Aggression

- ‘Aggression behavior aimed at causing harm or pain to others or self’  
SKS-NITTE Hostel Incident
- Direct or indirect
- Physical or emotional
- Active or passive
- Verbal or non verbal

# Causes of aggression

- **Social:** financial problems, poverty, cheating, injustice, unequal distribution of resources, exposure to violence within the community
- **Cultural:** belief about gender, sexuality, role, religious beliefs, dressing, familial
- **Environmental:** stress, broken family, family discord, academic pressure
- **Psychological:** to gratify his/her needs, to show dominance/power over others (bullying), frustration, jealousy, greed, low self esteem, stress, retaliation against the authority figures
- **Role modeling:** from media, movies, T.V. serials, imitation of others behaviors
- **Biological:** endocrine/hormonal abnormalities, brain injury, decreased serotonin, mental illness and genetics

# People at risk of having frequent aggressive behavior

- *Individual factors*
- *Family factors*
- *Social factors*

## ***Individual factors***

- Poor problem solving skills
- Poor socializing skills
- Childhood trauma like
- Sexual/physical abuse
- Mental illness like depression, anxiety disorders, conduct disorders, oppositional defiant disorders, epilepsy & substance use and head injury.

## ***Family factors***

- Broken family
- Family discord
- Violence within the family
- Substance use by the parents
- Poverty
- Improper parental discipline techniques
- Lack of parental monitoring.

## ***Social factors***

- Poor living conditions and social support,
- Exposure to violence (media),
- victimization by Peers (bullying),
- life events and stress
- Games like hovercraft (Masking of reality and fantasy)

# Management of aggression

- During the aggressive behavior, defend yourself
- Try to get help from others
- As a last resort physical restraint may be used to avoid injuring to oneself or to others

# **Management after the aggressive episode**

- Call and counsel the students
- Don't give advise before listening to both parties
- Make eye contact, use firm voice but be non-threatening, don't use harsh language.
- Explain with a genuine concern.
- Explain consequences of aggressive behaviour like disciplinary action, jail, and reduced chances of finding a job and friends

## **Anger management techniques to the individual who becomes aggressive**

- Moving away from that place / Time out
- Avoiding arguments
- Deep breathing techniques
- Meditation
- Relaxation techniques
- Counting numbers or repeating God's name silently
- Identifying and Managing emotions
- Doing vigorous exercise, banging the pillow, playing outdoor games, listening to music

# **Psychiatric help for a aggressive person**

If aggression is frequent, difficult to control and with very high intensity leading to

- Dangers to others Dangers to self (suicide)
- Which is secondary to mental illness or brain injury.
- Which is secondary to substance use, epilepsy.
- frequent breaking of rules and regulations

# **Role of colleges in suicide prevention**

- **Prevention is better than cure:**
- Avoid humiliating/punishing students in front of other students,
- Providing counseling services within the campus,
- Establishing a student support network group through peer counselors,
- Encouraging them to develop hobbies, sports, games and so forth,
- Providing opportunity and encouraging socialization,
- Involving family members in student's academics progress from the beginning,

# **Role of colleges in suicide prevention – Cont....**

- Educating the family members about the student's strengths and weakness,
- Preparing the students and family members before exams regarding the worst outcome in exams,
- Teaching problem solving skills and improve interpersonal relationship skills.
- Conducting GD, Seminars debates and workshop by mental health professions on attempting or committing suicide, depression, substance use, problem solving skills, available help/treatment/ counseling services, need for recreational activities and socialization.

# **Role of college in controlling aggressive tendencies in college**

- Aggressive tendencies Bullying and ragging should be dealt properly
- Monitoring the media content
- Stress management
- Provide healthy recreational activities
- Avoid physical punishment in college as much as possible

# Other High Risk Behaviours

- IPL betting
- Fast Bike Riding
- Unprotected Sexual intercourse
- Dope parties
- Networking avantharas?

SKS- Facebook incident

# The End



# Major Psychiatry Disorders

## Needing Identification, Referrals and Follow up

*Dr. P.V.Bhandary,*  
Medical Director & Psychiatrist,  
Dr. A.V. Baliga Memorial Hospital,  
Udupi



# Topics

## 0. Mental illnesses.

- Depression
- Mania
- Schizophrenia
- Treatments

## What is a mental illness?

It is when someone lacks the ability to manage day to day events and/or control their behavior so that basic physical and emotional needs are threatened or unmet.

These disorders can affect persons of any age, race, sex, religion, or income



- Mental illnesses are NOT –
- The result of a personal weakness, lack of character, or poor upbringing.
- Not due to **evil spirits, black-magic, past bad deeds.**

## Why should I care?

- Understanding of mental health issues brings awareness to the community and our surrounding environment.
- We will become a society that is accepting of others who do not fit our idea of a perfect population.

# What is mental illness like?

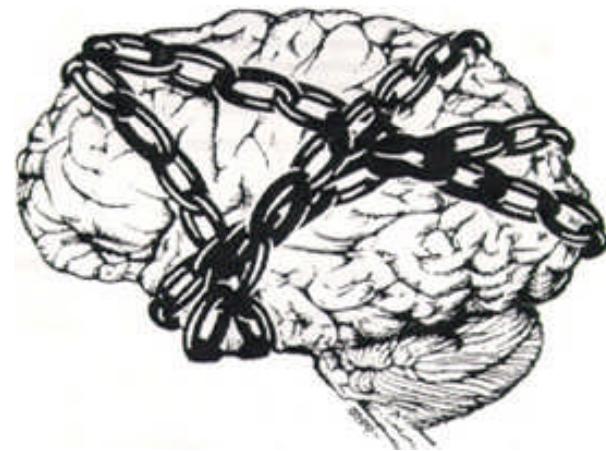


Mental illness is a physical condition just like asthma or arthritis.

But still society believes that a person who is mentally ill needs to show more willpower - to be able to pull themselves out of it.

But a person who has mental health issue has a “shackled brain”.

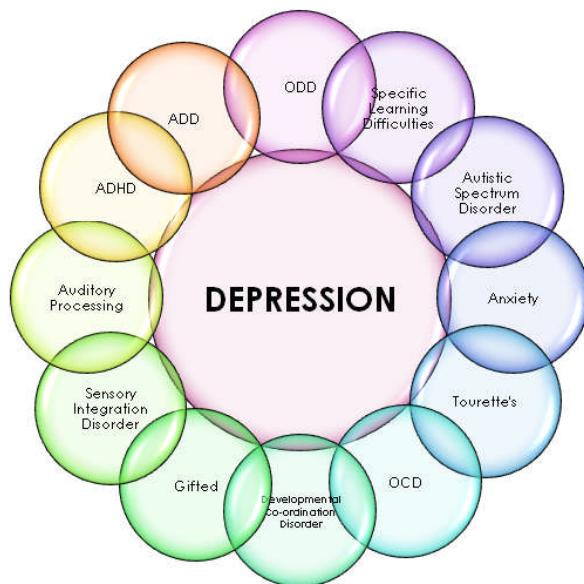
..... It is also like telling a person who has an amputated leg to run across the room.



# Myths of Mental Illness

- Mental illness is caused by bad parenting.  
Fact: Most diagnosed individuals come from supportive homes.
- The mentally ill are violent and dangerous.  
Fact: Most are victims of violence.
- People with a mental disorder are not smart.  
Fact: Numerous studies have shown that many have average or above average intelligence.

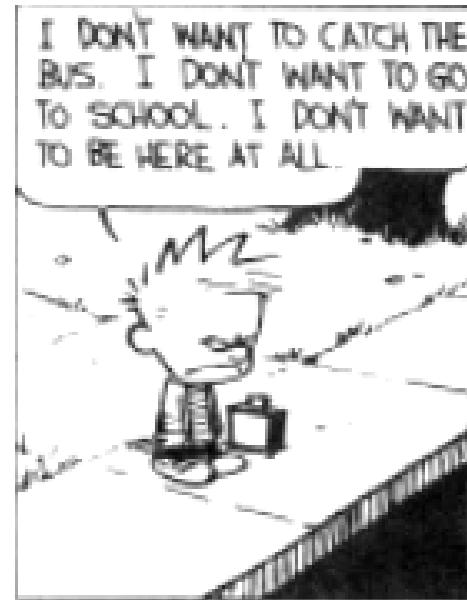
# Mental Illnesses in college students



- Depression
- Mania
- Schizophrenia



# Depression



I'M SICK OF EVERYONE  
TELLING ME WHAT TO DO  
ALL THE TIME! I HATE MY  
LIFE! I HATE EVERYTHING!  
I WISH I WAS DEAD!



# What is Depression?



Depression is a medical issue that affects a persons mood to be down, blue and/or fed up.

Depression is the most common mood disorder, affecting approximately 20 million people each year.

# Depression

Depression is a condition characterized by

- Sad mood and crying spells
- Lack of interest / energy / motivation
- Decreased attention / concentration / memory / intelligence
- Lack of pleasure / inability to enjoy
- Disturbed sleep / appetite / bowels / sexual functioning
- Vague bodily symptoms like pain, weakness, fatigue
- Thoughts of ending one's life, Death wish, suicidal ideas and attempts.



# Signs and Symptoms of Depression

- Fatigue or loss of energy
- Thoughts of death or suicide, including suicide attempts
- Feeling guilty, hopeless or worthless
- Difficulty concentrating, remembering or making decisions
- Persistent sad, anxious or empty mood
- Sleeping too much or too little; odd time of waking
- Reduced or increased appetite which results in weight gain or loss.
- Irritability or restlessness

# What factors causes depression?

There is no single cause of depression. But here are some factors:

- Psychological
- Biological
- Environment



## Family history.

Scientists have also found evidence which makes some people with a **genetic predisposition** to major depression vulnerable to the disorder.

However not everyone with a family history develops depression.

# Other causes of Depression.

Some life event that may trigger depression:

- Death
- Separation
- Financial loss
- Failure in exam
- Strained relationships at home/friends
- Failure of love affairs

Suicidal thoughts or ideas are common in depression and need immediate attention

## Why should teachers know about depression

Depression is one of the causes of

- Inefficiency
- Under-achievement
- Memory or concentration problems
- Alcohol and drug abuse
- Suicide

# How does depression work?

The way we **respond to situations** (with thoughts of hopelessness, anxiety, anger, etc) **effect** the emotions we feel, which in turn, **effects** the chemicals that are released within our body.

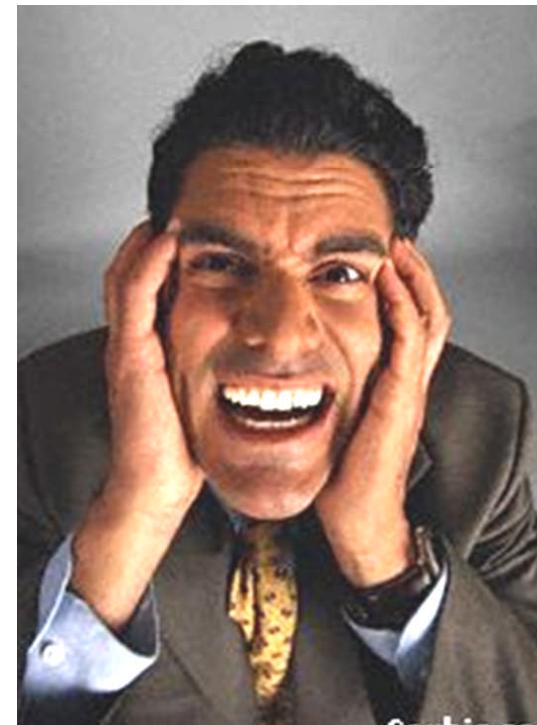
And all emotional responses have a chemical consequence. **Serotonin**, a neurotransmitter (body chemical), is a major contributor in the depression cycle.

# How Can I Help A Person With Depression?

Whenever you suspect person is having depression refer him/her to a professional.

- ❖ Listen to him/her, watch for **suicidal ideas**.
- ❖ Don't expect him/her to have more willpower - to be able to pull out it.
- ❖ “Motivating or **talking**” cannot help a depressive person.

# Mania (bipolar disorder)



# What is Mania?

Mania is part of a condition called bipolar disorder, also known as manic-depression.

Bipolar disorder usually causes a person's mood to alternate between symptoms of depression and mania, a heightened energetic state.

# Signs and Symptoms of Mania

- Increased physical and mental activity & energy
- Excessive irritability, aggressive behavior
- Decreased need for sleep; without experiencing fatigue
- Exaggerated optimism and self-confidence
- Racing speech and thoughts; flight of ideas
- Impulsiveness, poor judgment
- Reckless behavior: erratic driving, sexual indiscretions, spending sprees
- Grandiose delusions

# Causes of Mania



- The neurotransmitters: Norepinephrine, dopamine, and serotonin, have been studied since the 1960s as factors in mania and depression.
- In a manic episode, clients with bipolar disorder have a significantly higher Norepinephrine and epinephrine levels than a depressed or euthymic (normal mood) person.
- Norepinephrine and epinephrine are responsible for “fight or flight” responses.

# Suicide Letter

I lost patience,  
I have potential & I don't think  
my country'll make use of it. Indians  
have potential & our poor system has  
failed to make use of it.  
Bad luck poor India      Bad luck illiteracy  
Bad luck lotus pad      Bad luck constitution  
but,  
Good luck politicians

# How Can I Help a Person Who is Manic?

- Use a firm and calm approach when communicating:
- Remain neutral; avoid power struggles and don't cast judgments.
- Firmly redirect energy into more appropriate and constructive behavior.
- Do not yell or sound threatening, the goal is to try to keep anxiety down in a person who exhibits mania.

# Schizophrenia



# What is Schizophrenia?

Schizophrenia is a chronic and severe brain disorder.

It is a disease that makes it difficult for a person to tell the difference between real and unreal experiences, to think logically, to have appropriate emotional responses to others, aspects of memory and to act appropriately in social situations.

The World Health Organization (WHO) has identified schizophrenia as one of the ten most debilitating diseases affecting all human beings.

# Symptoms of Schizophrenia

Characterized by onset of strange behaviors like

- Un-understandable strange talk and behaviour  
Suspicious
- Withdrawn, poor or no communication
- Increasing social isolation
- Hearing voices when there are none
- Feeling persecuted
- Sudden excitement, over activity, wandering aimlessly, unprovoked aggression
- Excessively cheerful and boastful
- Associated disturbances in sleep, appetite and bower-bladder functioning
- Some time psychotic behaviour can manifest as a progressive academic decline and change in personality.



# What Causes Schizophrenia?

There is no one cause to this complex and puzzling illness, but it is believed that some combination of genetic, biological (virus, bacteria, or an infection) and environmental factors play a major role.

There is currently no reliable way to predict whether a person will develop the disease.



John Nash, a famous Schizophrenic. His life story made into a film, *A Beautiful Mind*.

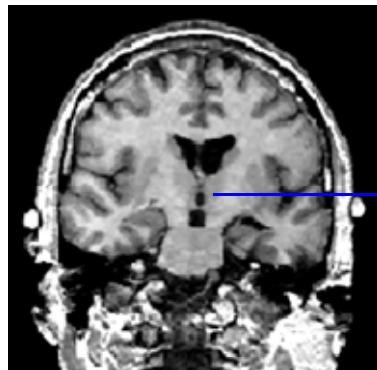
# What Occurs in the Brain of Someone with Schizophrenia?

Researchers believe an imbalance of neurotransmitters may cause the symptoms of schizophrenia. Two neurotransmitters that have most been implicated as abnormal in schizophrenia are dopamine and serotonin.

The ability to produce images have helped in identifying structural and functional differences in a schizophrenic brain versus a normal brain.

# From The Looks of It

Schizophrenic brain



Normal brain



Brian imaging has shown a difference in:

- Enlargement of the ventricle
- Decrease in the hippocampus (controls emotional and working memory)
- Decrease in overall size
- Abnormal development of pre-frontal cortex (forehead region; controls information process, motivation, problem solving, decision making, and thinking speed)

# How to Help a Person With Schizophrenia

The following guidelines may be useful when talking to a person whose speech is confused and disorganized.

1. Do not pretend that you understand the persons words or meaning when you are confused
2. Tell the person that you are having difficulty understanding what they are trying to communicate
3. Place the difficulty of understanding upon yourself “I’m having trouble following what you are saying.” not “You are not making any sense.”
4. Tell the person what you do understand; reinforce clear communication.
5. Keep their anxiety down by: a calm voice and firm direction

# Treatments

# Treatment



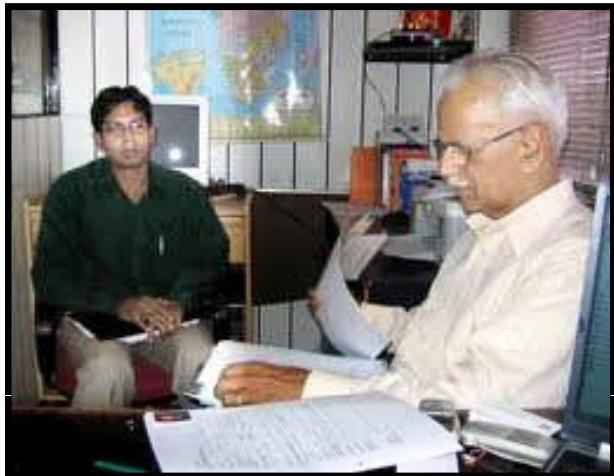
- All Major Psychiatric disorders require medications
- When disorders are severe or patient is suicidal or patient is aggressive in patient admission is necessary
- Medications used are:
  - Antidepressants
  - Anxiolytics
  - Antipsychotic
- Earlier the treatment better the outcome
- All psychiatric medications are not addictive
- All psychiatric medications are not sedatives

# M.E.C.T (electro convulsive shock therapy)

- E.C.T. is not a barbaric treatment
- It is a panacea in case of (1) Severe depression (2) suicide.
- It does not damage the brain permanently

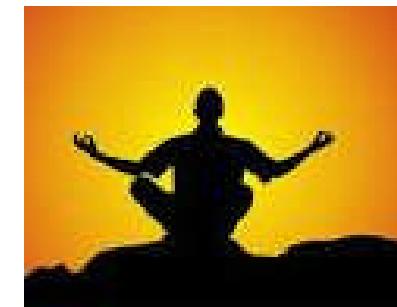


# Individual and family counseling and guidance



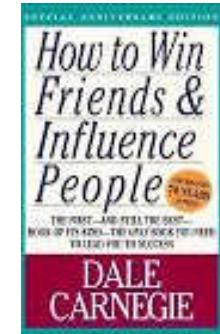
# Healthy recreation and relaxation activities

- Meditation
- Yoga
- Sports
- Dance
- Nature walk



# Mild Depression - solution

- Relaxation techniques such as **yoga or meditation or nature walks.**
- Educate yourself by reading **self help books** or join a **support group.**
- See a **counsellor** at (Baliga hospital, Udupi).

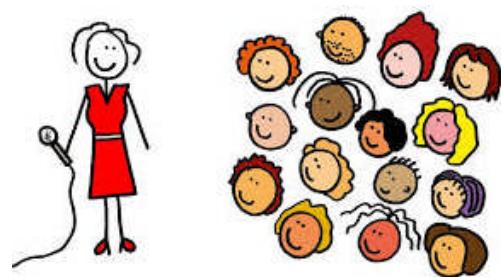


# Treatment can save lives.

- Appropriate treatment, help, support and encouragement, leads to recovery , continue their education to lead a normal and useful life



# Scenarios

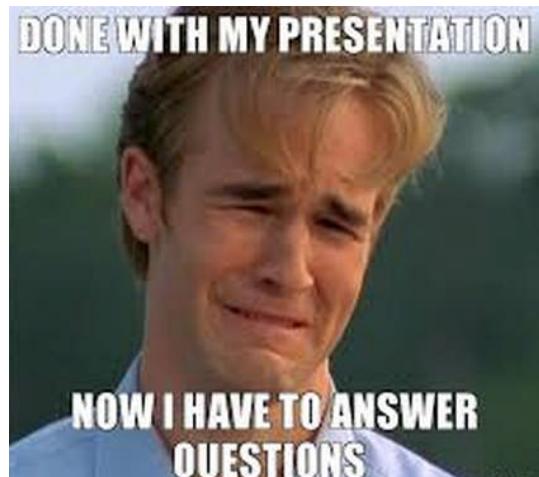


Mohsin, PSN, JKSHIM, 8/2014

# Unquestioned Presenter

Your classmate is presenting a seminar.  
You have questions.

Should you ask him/her in during the  
seminar or afterwards or not at all?



# What do you think?

Asking questions to a friend in a seminar is bad manners.

Asking questions will put your colleague in trouble, especially if he/she doesn't know the answer.

Asking questions is a good way of showing off you are paying attention.

Asking questions is a good way to trouble someone you don't like without being impolite.

# About asking questions

- Asking questions leads to trouble and class is delayed.
- Asking questions means you didn't understand and your friends will think you are dumb.
- Asking questions is a good way to practice speaking skills.
- Asking questions can make the discussion more interesting, if valid points are raised



# Questions: Angry roommate

You are eating and watching a movie on your laptop late at night.

Your roommate gets angry and says "**You are a useless untidy bum, get lost.**"

What should you do?



# Questions: Angry roommate

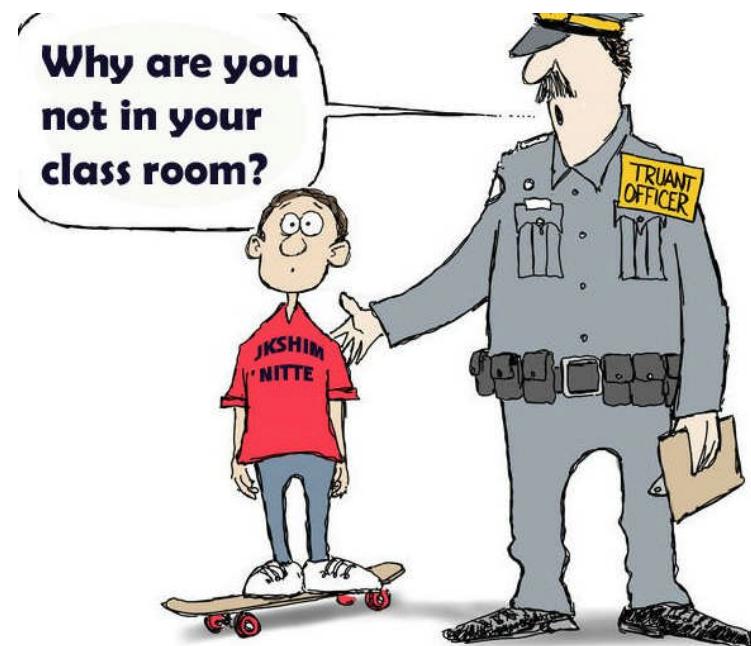
You should

- Fight back, and give a fitting reply?
- Call the warden?
- Change your roommate next day.
- Go out and ignore him/her.
- Ask if there is some problem that is bothering him/her?

# Question: Truant roommate

Your roommate is always bunking class and asks you to give his/her proxy attendance.

What should you do?



# Question: Truant roommate

You should

0. Show support and also bunk classes.
1. Give proxy attendance, or you will have no friends left.
2. Report him/her to teacher for bunking.
3. Call his parents and show them how their hard earned money is wasted.
4. Find out the reason for his/her bunking.

# Mother Tongue or English?

At dinner table in hostel, your friends are talking in Tulu / Konkani / Kannada, you are all weak in English.

A foreign student also weak in English comes to your table.

What should you do?

- Ignore him and continue talking in local language.
- Ask him to sit elsewhere, as none of you can speak good English and you don't want to bore him.





# PSN



Presented by Kavya and Nishita  
JKSHIM, 8/2014

# What is PSN?

1. PSN is a Peer Support Network
2. They are your friends who volunteer their time and energy to listen to you.
3. You can talk to them about anything that is bothering you.
4. They will listen to you.

## What PSN can/cannot do

- They cannot give advice on how to solve your problems.
- They will keep the conversation and your name confidential.
- They can't help you materially or academically, it is your job to study.
- But they can show you the resources or good habits to study and live healthily.

# PSN members (2<sup>nd</sup> year)

1. Kavya M N
2. Nishita Rai
3. Akash Shetty
4. Gaurav Rao
5. Pushparaj
6. Shruti U
7. Varun R



## How to work with PSN

- Meet your PSN rep, find a time when both of you can talk.
- Do not waste their time with gossip, skipping appointment or being late - they also have studies to do.
- Treat them with respect, and they will treat you with respect.
- See if you can also help them in anyway.



Late comer

# Exercises: Dealing with Situations



Marks



Friends and fights



Bunking class



Partying

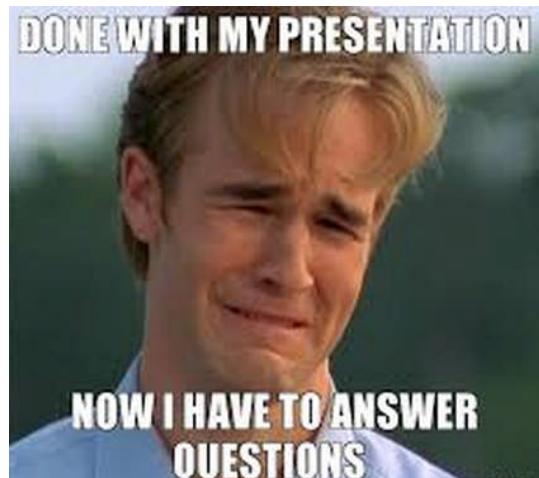


Presentations

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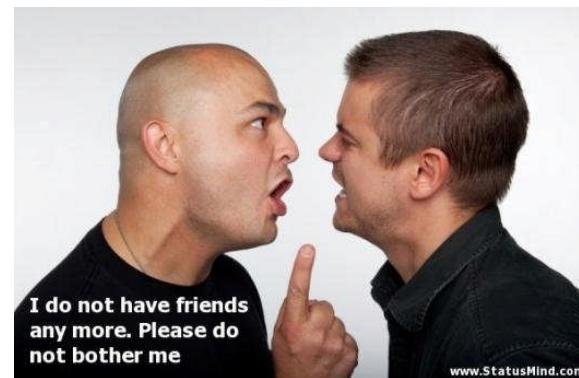


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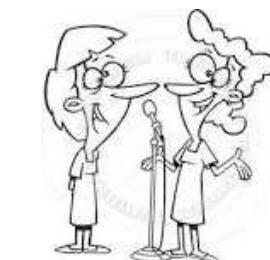
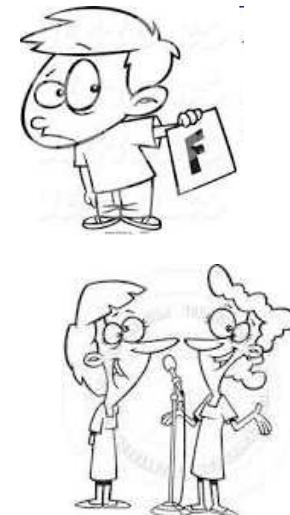
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# Scenarios



from Prof. Shalini Sharma, NITTE, 3/2014

# 1. Our behavior reflects our attitude



- Hasmukh, a student of the 7th semester asks for an appointment to discuss his problem of not getting placed.
- He is worried that he has not cleared the aptitude tests in the five campus interviews he attended.
- He is given an appointment at a time convenient for him the next morning at 9.30 AM.
- He arrives late by 40 minutes.
- He is asked to return in the afternoon ready for a test to check his prowess in aptitude tests as he reports doing well in the test but not getting shortlisted.
- For the afternoon's appointment, he arrives 20 minutes early.
- When called in and given the test paper after instructions, we find that he has come without a pen.

# Task



1. How do you perceive this behavior?
2. What would you advise Hasmukh?
3. As a group discuss it and give him a rating from 1 to 10 on his attitude.
4. Is there a likelihood of your behaving in this manner?
5. How should we treat such behavior?  
Why?

## 2. A personal relationship



1. Subhash is friendly with Rosa of his class for the past two years and they have been spending a lot of time together.
2. It is believed that they are in love. Subhash is doing well in studies and Rosa is falling behind.
3. Rosa of late has been finding fault with Subhash over his friendliness with their common girl friends and forbids him from being friendly with them.
4. She picks up a fight with her room mates who try to advise her. She stops talking to them.
5. Upset with her behavior, Subhash decides to break the relationship.
6. Rosa makes a suicidal attempt.



# Task



1. How do you perceive this behavior? \_\_\_\_\_
2. How common are 'relationships' in this age group according to you? [\_\_ /10]
3. How common is possessiveness and suspicion in adolescents? [\_\_/10]
4. How important is it to have a 'relationship' according to your group? [i. Very Important/ ii. Important/ iii. Not important]
5. Your reasons for the above response: \_\_\_\_\_
6. Why do people feel insecure in a relationship? \_\_\_\_\_
7. Do you think that Subhash is guilty in any way? [y/n] How? \_\_\_\_\_
8. What would you advise Rosa? \_\_\_\_\_
9. Do you endorse Subhash's stand of breaking the relationship?  
\_\_\_\_\_



### **3. Attraction to Drinking**



1. Dandiya Raas programme was being organized by the JKSHIM, to begin at 6 pm.
2. A large group of engineering students went to 'Forever' to have some drinks before they attended the programme.
3. A Musical evening is organized in the open air auditorium in NMAMIT and a sizeable number come inebriated (drunk) to attend the programme.

# Task



1. How do you perceive this behavior?
2. How common is it ? \_%
3. What does your group feel about it?
4. Is it difficult to enjoy a programme of 'dance and music' without alcohol?
5. Discuss on alternative, healthier ways of enjoying a 'nach gana' programme.

## **4. Dealing with a Loan**

1. Malini has taken a loan of Rs. 3,000/- from her friend Gina to buy some flowers & pastries for some guests at her home saying that she has left her purse behind.
2. She has assured Gina that she would return the money the next day.
3. It's a week but no mention of the borrowed money is made even when they meet.
4. When Gina mentions it Malini says that she forgot and would return it the next day. It does not happen.
5. Gina decides to go to her house and collect it and calls Malini & reminds her.
6. Malini makes many excuses, grumbles saying she's busy and behaves as though Gina is the one who is at fault.





# Task



1. How does your group perceive this lending-borrowing scene?
2. Have you had experiences of this nature? Share it with the group.
3. Why do people borrow in adolescence?
4. Is borrowing inevitable?
5. Is there any code of conduct to be observed while lending or borrowing?
6. Please list them.

## **5. Classroom Scene**

1. Ranjan is sitting in class and is unable to follow certain things that are being taught in class.
2. He does not ask the teacher about it in class or outside.
3. He does not clarify it with his friends who may know about it.
4. The next class he attends more of what the teacher says goes un-understood by him.
5. He starts day dreaming in class and ends up doing poorly in his mid-sem exams.



# Task

1. How common is this behavior in young people?  
\_\_\_\_\_/10
2. Why don't students clarify their doubts promptly in class?
3. Why do students fear meeting the teacher after class?
4. What would you ask Ranjan to do by way of getting himself strong in the subjects he is studying to become successful in life?
5. Give systematic guidelines on what he can do.
6. What can be done to enable understanding and interest in a subject by a student?
7. What can be done by the teacher to enable interest in students in the subjects he is taking?



## **6. Annual Day Invocation**

1. Jean who sang well was asked to recite a poem as a prayer on College day.
2. Jean recited the poem enthusiastically with the organizer and came along with a Jolly for a duet performance and a key board player.
3. They practiced in the presence of the team a few times and were asked to perfect it and return as per plan on the college day in suitable attire.
4. On the college day, the invocation offering team did not respond to the MC's call and the faculty team had to push the team leader Ajax on to the stage to perform.
5. Ajax was seen downloading the poem as he moved across the stage to the podium and not knowing his words.



# Task

1. How do you view this behavior?
2. According to your group, why did the students behave in this manner?
3. What should be done to prevent such behaviours in the future?
4. What is the mistake that you can see in the organizing?
5. What should be done to reprimand the students from behaving in this manner?
6. How is this behavior viewed by the audience?



## 7. Ramesh's loan problem

1. Ramesh has just completed the 8th semester in Civil Engineering in NMAMIT.
2. He has been selected by a reputed company for employment through Campus Interview.
3. Ramesh belongs to the low socio economic strata.
4. He is shy, lacks confidence and does not have good communication abilities.
5. He is however, hard working, gets good grades in studies and has come into engineering through the Govt. Merit Quota of the CET.



## 7. Ramesh's loan problem

1. Ramesh found it extremely difficult to continue his studies when he entered the fifth semester owing to severe financial difficulties.
2. He approached the Trust for assistance and he was given a tuition fee waiver from the 5th to the 8th semester.
3. However, he had to sign an affidavit that he would serve the Institution as a lecturer for two years after completion of his studies.



## 7. Ramesh in Debt

1. Ramesh did not consult any of the college authorities before appearing for the campus interview or after he got selected.
2. He is required to join the company in August.
3. Jake, the company HR personnel who are aware of his debt, asked Ramesh to get a clearance from the college that it has no objections to Ramesh joining the company.



## 7. Task

Discuss in your group and answer the following:

1. How do you view Ramesh's problem?
2. Should the College/Trust give him a clearance to join the company?
3. Should they impose any penalty on him?
4. What do you think of Ramesh's personality?



## **8. Fast horse Vs. Slow horse**

1. A young boy asked a wise lady, "Why is a fast running horse better than a slow running one? "
2. The wise lady said, "It has developed the habit to produce more power so that it can run up to ten times faster than a slow horse."
3. Boy says "What if the horse is running in the wrong direction"?
4. The lady smiles and says, "Definitely it is wasting the efforts ten times quicker than the slower horse."



## **8. Task**



1. The boy says, "What if the other horses are following him too?"
2. The lady says "Of course it will mislead all those horses too!"
3. "Then why do most of the horses follow the faster horse?"
4. Task: Discuss as to what the wise lady told the young boy & write it down after a good discussion.

## **9. To Pay or Not to Pay?**



1. Few centuries ago, a Law teacher came across a student who was willing to learn but was unable to pay the fees.
2. The student struck a deal saying, "I will pay your fee the day I win my first case in the court."
3. Teacher agreed and proceeded with the law course. When the course was finished and teacher started pestering the student to pay up the fee, the student reminded him of the deal and pushed days.
4. Fed up with this, the teacher decided to sue the student in the court of law and both of them decided to argue for themselves.

## 9. To Pay or Not to Pay?



1. The teacher put forward his argument saying, "If I win this case, as per the court of law, the student has to pay me as the case is about his non-payment of dues. And if I lose the case, student will still pay me because he would have won his first case. So either way I will have to get the money."
2. Equally brilliant student argued back saying, "If I win the case, as per the court of law, I don't have to pay anything to the teacher as the case is about my non-payment of dues. And if I lose the case, I don't have to pay him because I haven't won my first case yet. So, either way, I am not going to pay the teacher anything."

## 9. Task

- Discuss. How can both be right?



# Epilepsy

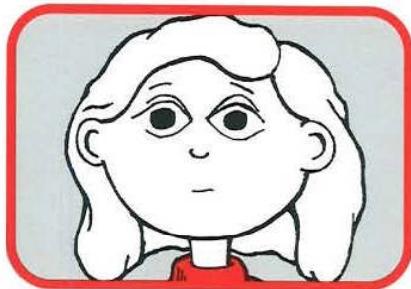
*Dr. P.V.Bhandary*

Medical Director & Psychiatrist,  
Dr. A.V. Baliga Memorial Hospital,  
Udupi

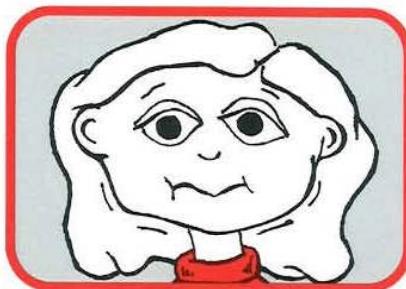
# First Aid for Seizures

(Complex partial, psychomotor, temporal lobe)

## 1. Recognize common symptoms



Blank staring



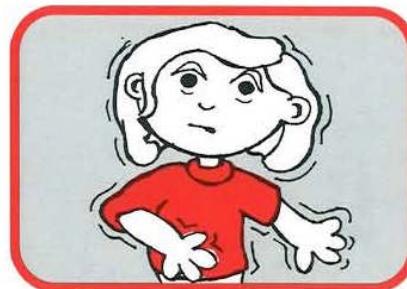
Chewing



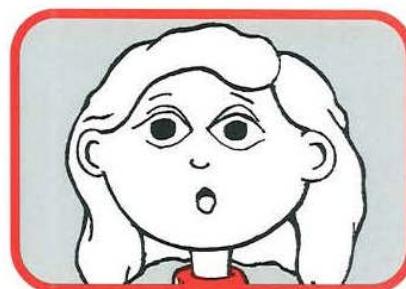
Fumbling



Wandering



Shaking



Confused speech

## 2. Follow first aid steps



Don't grab hold



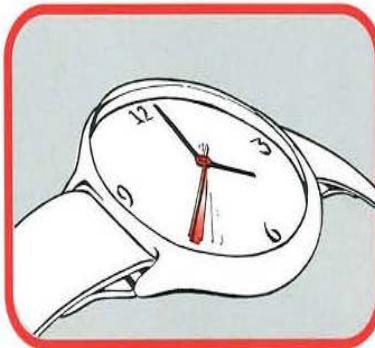
Explain to others



Block hazards



Speak calmly



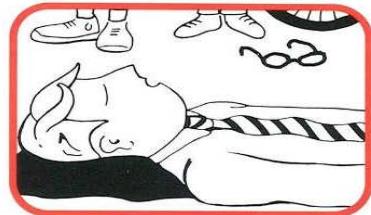
Track time, remain  
nearby...



...until seizure ends

# First Aid for Seizures

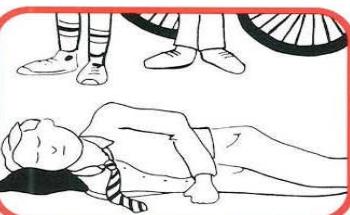
(Convulsions, generalized tonic-clonic, grand mal)



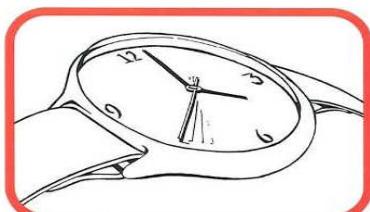
Cushion head,  
remove glasses



Loosen tight clothing



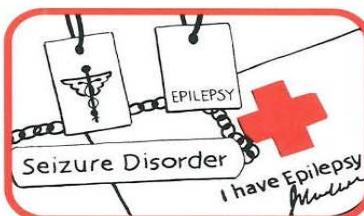
Turn on side



Time the seizure with  
a watch



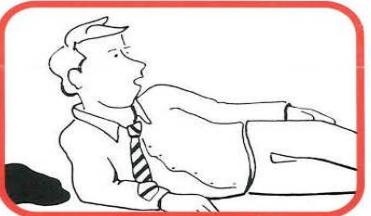
Don't put anything  
in mouth



Look for I.D.



Don't hold down



As seizure ends...



...offer help

## Alexander The Great



NICHOLAS PIRAMAL INDIA LIMITED

2

Alexander the great had it.

**Napoleon**



NICHOLAS PIRAMAL INDIA LIMITED

**3**

**Napoleon had it.**

- Epileptics cannot enjoy life because they are always fearful that any time an attack may occur.

## Living in fear

---

## **Epilepsy - Definition**

**“a clinical manifestation presumed  
to result from an abnormal and  
excessive discharge of a set of  
neurons in the brain.”**

*New Oxford Text book of Psychiatry, 2001, 1153*

*NICHOLAS PIRAMAL INDIA LIMITED*

# **Classification of Seizure Types**

- I. Partial seizures (seizures begins locally)**
- II. Generalized seizures (bilaterally  
symmetrical and without focal onset)**
- III. Unclassified seizures**
- IV. Status epilepticus**

I have... mumps, flu, epilepsy



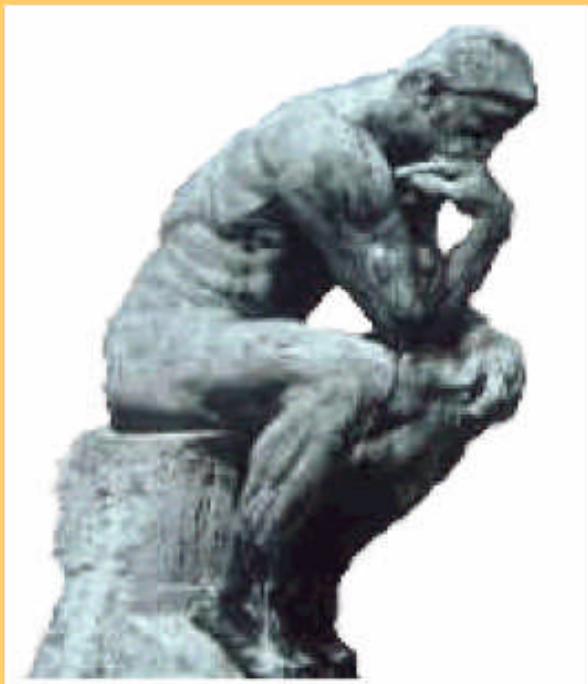
the only difference is up to you

**None of these are anyone's fault, but how  
you think about it can make a difference.**

**Epilepsy is not a disease, and it's OK!!**

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# Causes



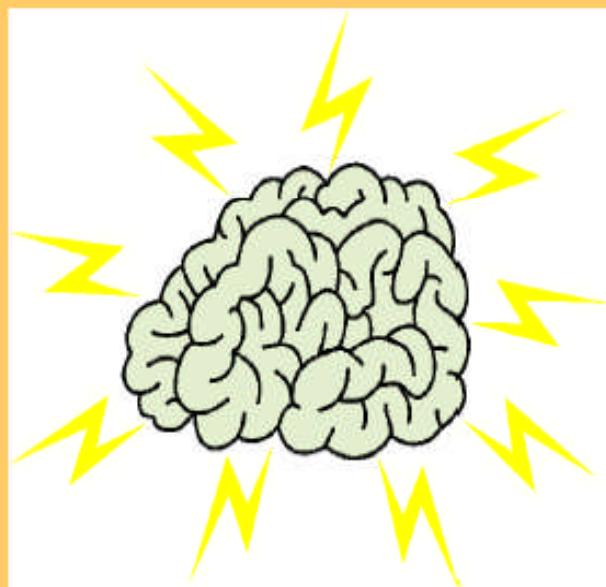
- PHYSICAL
- METABOLIC
- INFECTION
- GENETIC

## **Risk Factors & Vulnerabilities**

- Genetic predisposition – Shown to run in families.
- Following traumatic head injury, the risk of epilepsy increases (53% for Vietnam Vets. Approx. 15yrs post-injury).

## **Risk Factors & Vulnerabilities Cont.**

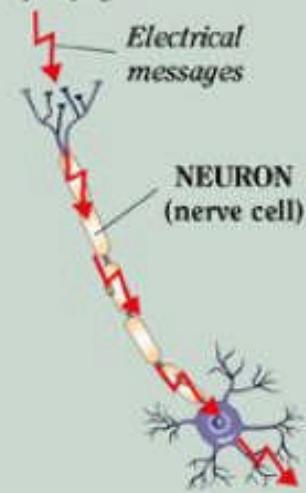
- Epileptics seizures can set in via:



- Unknown etiology.
- Physical debilitation  
(illness, lack of sleep,  
exhaustion).
- Emotional stress
- Watching visual flicker

## *What Happens During a Seizure*

*Excessive electrical activity in the brain sends impulses along the nerves causing the symptoms of Epilepsy.*



*This excessive activity can lead to seizures*

# **Examinations & Investigations**

- Neurological Examination
- Blood
- EEG
- ECG
- MRI / CT



# **History**

- **VERY IMPORTANT**
- **PRODROME**  
*(The first sign of an upcoming occurrence)*
- **AURA**  
*(sensation in the mind and body that some people with epilepsy)*
- **EYE WITNESS**
- **MEMORIES**
- **SEQUELAE**
- **MEDICAL HISTORY**
- **TRIGGERS**

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# **Essential information for patient and family**

- Epilepsy
  - Common condition.
  - Usually self-remitting and brief.
- Rarely, status epilepticus develops
  - Ongoing seizures one after another or an unusually prolonged seizure of four to five minutes or longer.
  - Can be potentially dangerous
  - Seek professional treatment
  - Injectable medication required



## **Essential information for patient and family**

- Most patients become seizure free with medications.
- Good result - 3-5 yrs seizure-free period with anticonvulsant medication
- Think of anticonvulsant medication reduction/withdrawal if above is achieved
- Continued seizures – patient at risk - eg while bathing, driving.

## **Essential information for patient and family**

- Psychiatric symptoms can occur secondary to epilepsy
- Cognitive impairment - prolonged history of seizures / use of anticonvulsants
- Women with epilepsy need careful preconception counseling

## **Do's and Don'ts for the onlooker**

- **Don't try to stop the fit or move the patient**
  
- **Protect the person from injury. Clear the area of furniture or other objects that may cause injury from falls during the seizure.**



## **Do's and Don'ts for the onlooker**



- **Don't force anything into the mouth (like spoon, or water) during a seizure.**
  
- **Do allow enough air circulation and cushion head.**



## **Do's and Don'ts for the onlooker**

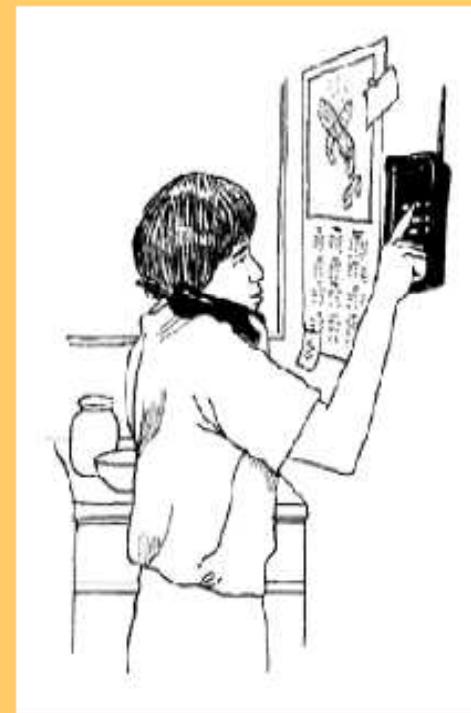
- Turn the patient to his/her side to prevent swallowing the vomit.



- Loosen tight clothing around the neck.
- Note the movements and changes to report to the doctor.
- Call the doctor if the convulsion lasts longer.

## **When to call the Doctor?**

- If the person having seizures turns blue or stops breathing, turn him or her to the side to keep the airway or mouth open and prevent the tongue from obstructing the airway.
  
- Obtain professional medical assistance immediately.
  
- If there is any injury due to the fall after a fit, appropriate treatment should be given.



## **General management and advice to patient and family**

- Record frequency and types of seizures in diary - helpful for determining treatment.
- Psychosocial aspects of treatment - clear and supportive education to patient and family.
- Essential limitation of activities -eg driving, swimming, use of stairs or crossing streets with traffic



## **General management and advice to patient and family**



- Inform the child's school, teacher, bus conductor and friends and tell them the do's and don'ts
- Keep an extra lot of the child's medicines in the school bag
- Try to make him lead as much a normal life as possible
- Engagement with support groups

## **Does missing medications cause seizures?**

- Yes, it can.
- Most common cause of breakthrough seizures.
- Can lead to status epilepticus, if medication abruptly stopped altogether.

## **Is it harmful to miss a single dose of seizure medicine?**

- Often nothing bad happens
- Chance of having seizure will increase
- Missing one dose more likely to cause seizures if medicine is once a day.
- If medicine is two to four times a day, the risk from missing one dose is less.
- Several doses missed in a row - likelihood of breakthrough seizure high

## **What strategies can help prevent missing doses?**

- Use activities as cues to remind taking medicine.
- Organize pills by day of the week and time of day.
- Wristwatch with an alarm
- Keep at least a one- to two-week supply on hand.
- Keep "emergency" supply at work, in purse or wallet, or perhaps in car
- For children, have the school nurse or teacher keep some medication on hand.
- When traveling, pack two supplies of seizure medicine, in both a carry-on bag and your checked luggage.

## **What would happen if patient stops taking seizure medicine?**

- Stopping medication without doctor's advice is dangerous.
- Abruptly stopping some seizure medicines - withdrawal symptoms.
- Never stop taking a seizure medicine without talking about it with your doctor first.

# **Can sleep deprivation trigger a seizure?**

- Yes, it can.
- Lack of proper sleep
  - Increase chances of seizure
  - Increase the intensity of seizures
  - Increase the length of seizures.



## To avoid sleep deprivation, how much sleep is should the patient get?

- "Adequate sleep" varies
- Amount that leaves you feeling refreshed the next day.
- For most adults with epilepsy, - at least 7 hours a night.
- For some people, any kind of disruption of sleep-wake cycle makes seizures more likely even if they sleep for the same number of hours.



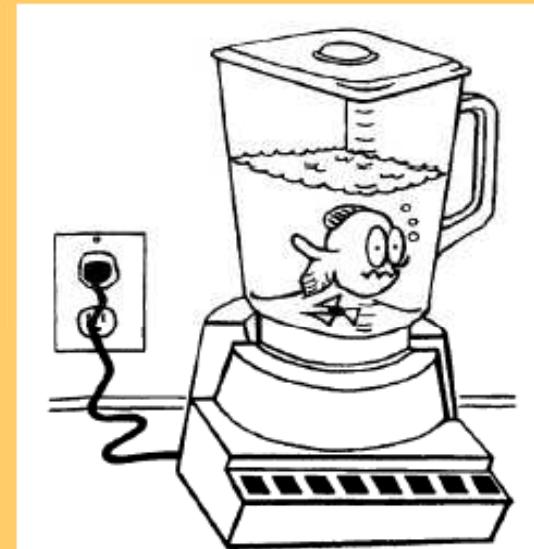
## **What are some strategies for getting a good night's sleep?**



- Sleeping environment - quiet and dark.
- Go to bed at least half an hour before trying to fall asleep.
- Do not watch television in bed
- Avoid caffeine for 6 hours before bedtime.
- Exercise daily but do not exercise within a few hours of going to bed

## **How can stress cause seizures?**

- Stress can affect brain function in the following ways:
- Trigger an increase in the breathing rate
- Leads to missed medication
- Cause hormonal changes -eg increase in cortisol
- Negative emotions related to stress, such as worry or fright, may cause seizures (limbic area).



**And you thought  
there was stress  
in your life !**

## How to deal with stress?



- **Avoid known stressful situations**
- **Learn relaxation techniques / yoga**
- **Unavoidable stress**
  - make extra effort to get enough sleep
  - take seizure medicine on time.

## **Does the menstrual cycle affect the rate of seizures in women with epilepsy?**



- Yes.
- Premenstrual and ovulatory phases associated with highest seizure frequencies.
- Approximately  $\frac{1}{2}$  the women of childbearing age with epilepsy - increase seizures around the time of their monthly menstrual period.

## **What strategies can doctors use that may reduce seizures associated with the menstrual cycle?**

**During the vulnerable period:**

- Some change in the amount of the daily dose of the antiepileptic medicines may be required
- Reduce water retention
- Take additional antiepileptic medicines

## **SUMMARY**

- Epilepsy is a common disorder
- Potentially treatable and curable
- With adequate anti-epileptic medication a patient can lead a normal life.
- Regular intake of the medication is a must
- Regular follow-up with the doctor is required
- If the patient is seizure free for 3-5 yrs the anti-epileptic medicine can be gradually withdrawn under the supervision of a doctor

## **Summary**

- Appropriate treatment, help, support and encouragement leads to recovery.
- Continue education to lead a normal and useful life

## Treatment



© www.123rf.com

# Dealing with Mild Depression



# Depression

Depression is a condition characterized by

- Sad mood and crying spells
- Lack of interest / energy / motivation
- Decreased attention / concentration / memory / intelligence
- Lack of pleasure / inability to enjoy
- Disturbed sleep / appetite / bowels / sexual functioning
- Vague bodily symptoms like pain, weakness, fatigue
- Thoughts of ending one's life, Death wish, suicidal ideas and attempts.



# 7 signs a child may be depressed

If you notice any of these behaviors in your child persisting for two weeks or more, take them to a doctor for evaluation.

Check off the signs that apply to your child

- Sadness that lasts most of the day
- More crankiness and irritability than usual
- An inability to have fun doing things that used to be fun
- Regressing in behavior — acting younger than their age
- Feeling tired all the time for no medical reason
- Trouble sleeping through the night
- Changes in appetite

# Signs and Symptoms of Depression

- Fatigue or loss of energy
- Thoughts of death or suicide, including suicide attempts
- Feeling guilty, hopeless or worthless
- Difficulty concentrating, remembering or making decisions
- Persistent sad, anxious or empty mood
- Sleeping too much or too little; odd time of waking
- Reduced or increased appetite which results in weight gain or loss.
- Irritability or restlessness

# Healthy recreation and relaxation activities

- Meditation
- Yoga
- Sports
- Dance
- Nature walk



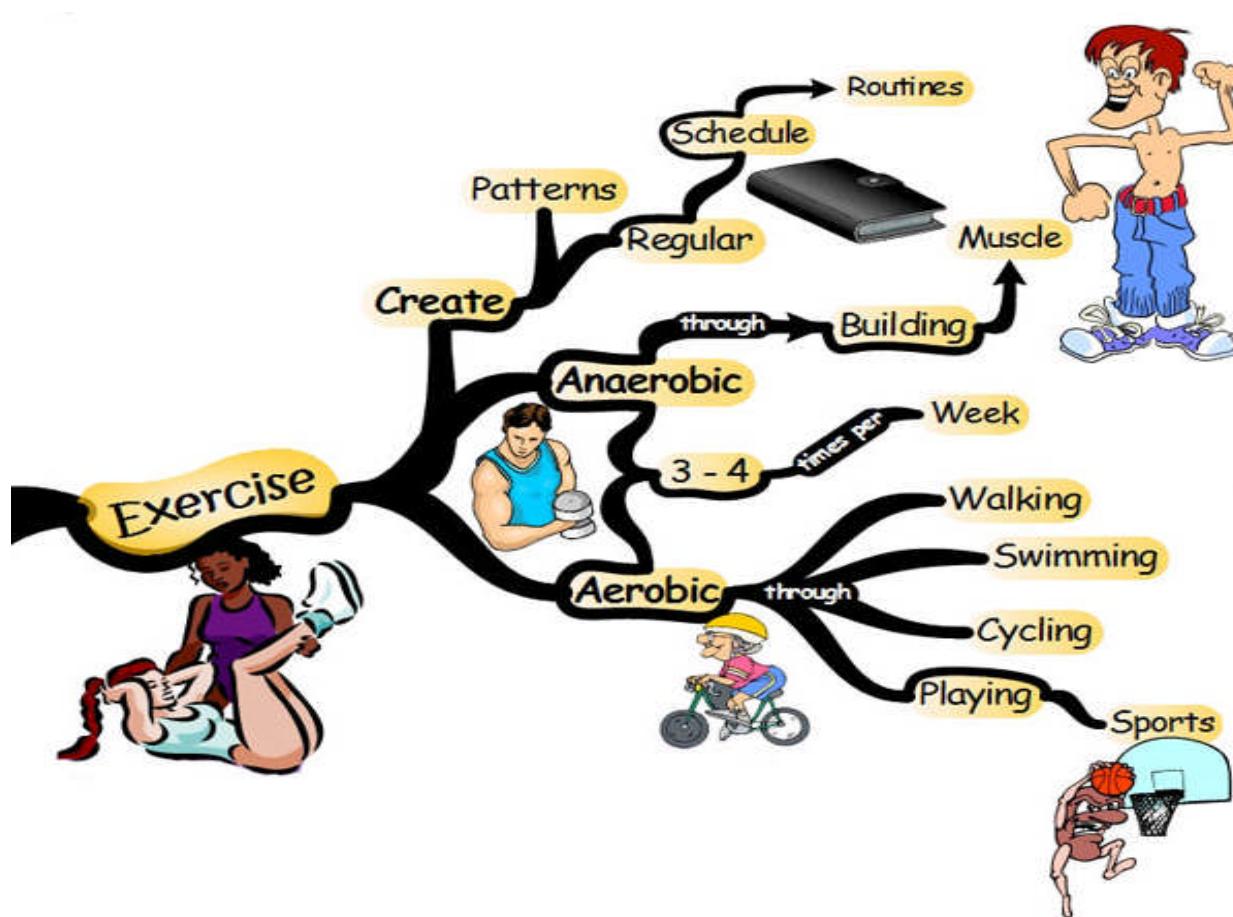
# Mild Depression - solution

**Exercise regularly:** aerobic exercise (such as brisk walking or jogging) can be as effective in treating mild depression as conventional medicine.



Aerobic exercise can increase the brain's production of endorphins, natural chemicals that can make you calm and happy.

# Sports to overcome depression



## Mild Depression - solution

Avoid alcohol and  
drugs that have  
not been  
prescribed to you



# Mild Depression - solutions

- Eat a well balanced diet



# Balanced Diet

- Omega 3
- Fruits and Veg
- Dairy
- Cereals (Wheat, rice).



# Mild Depression - solution

- Gain support by **sharing your feelings** with family and/or friends.
- Pet
- Hobbies



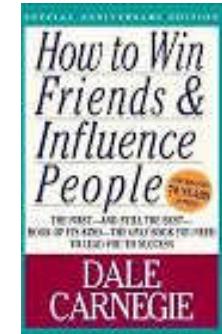
# Mild Depression - solution

- Hobbies
- Gardening
- Helping
- Reading

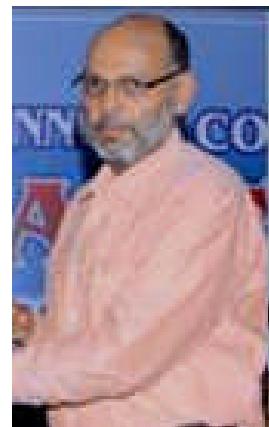
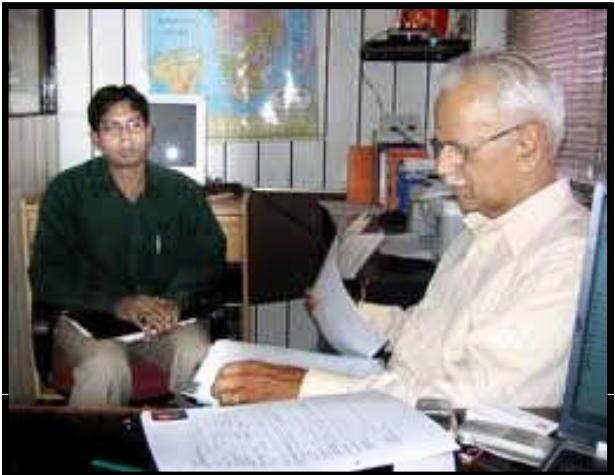


# Mild Depression - solution

- Relaxation techniques such as **yoga or meditation or nature walks.**
- Educate yourself by reading **self help books** or join a **support group.**
- See a **counsellor** at Baliga hospital, Udupi.



# Individual and family counseling and guidance



# Nature

Mohsin, JKSHIM, 8/8/2014.

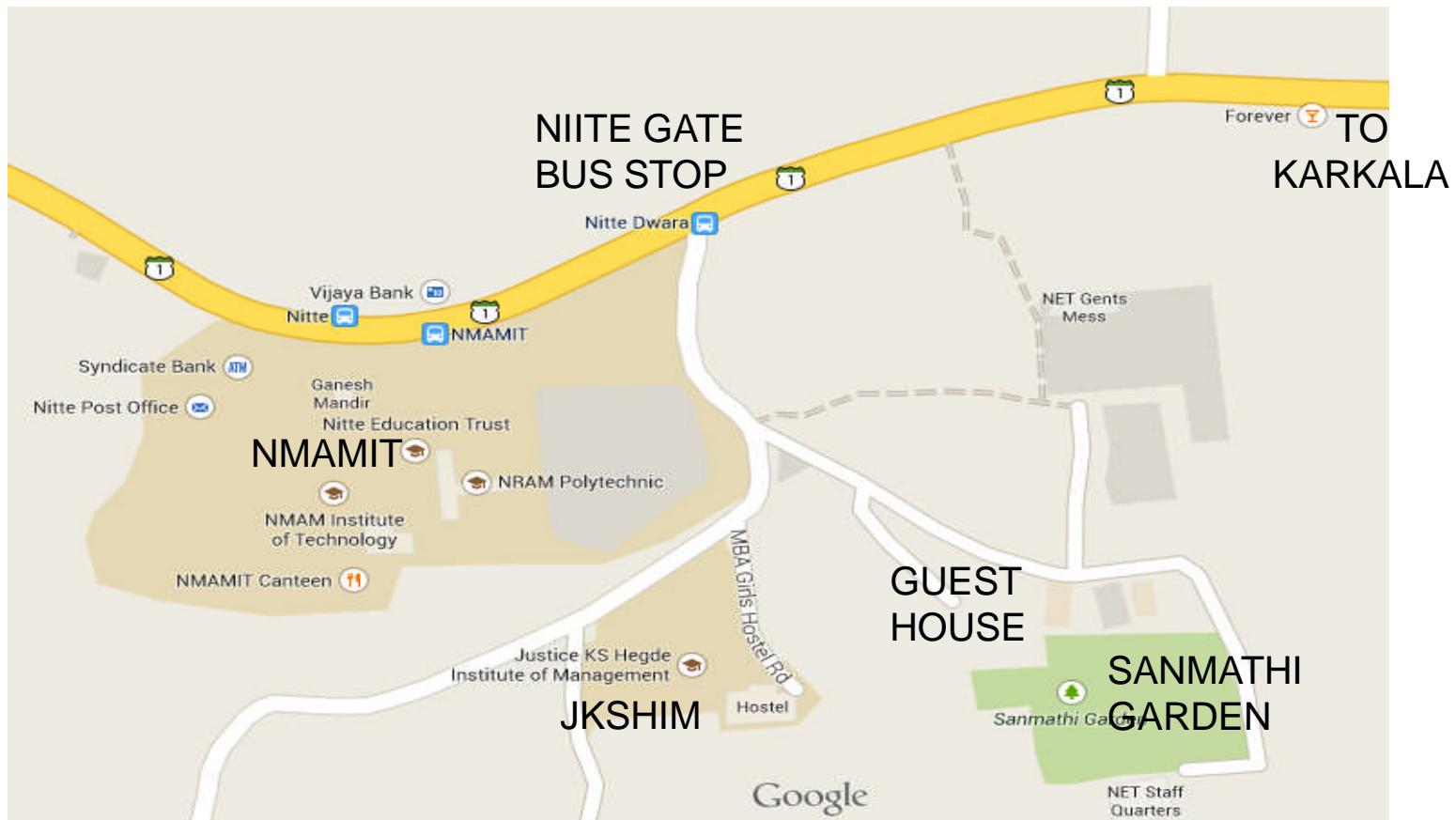
# Check list

- Umbrella
- Water proof shoes or chappals
- Identity the trees on the walk
- Quiz

Optional:

- Camera or phone camera, charged.
  - Take around 20 pictures of the plants.
  - Find the trees shown in the slides.

# Map of NITTE



# Map of walk



# Local Trees and Plants

Mohsin,  
JKSHIM, Nitte INDIA 575110,  
7/2014, 9/2015.

# Rose by any other name?



# Plumeria, temple tree



# Ixora



# Zinnia



# Parijate



# Sadaphuli



# How to name this?

Google image  
search: yellow  
red flowers,  
hanging,tropical

Heliconia



# Bougainvillea



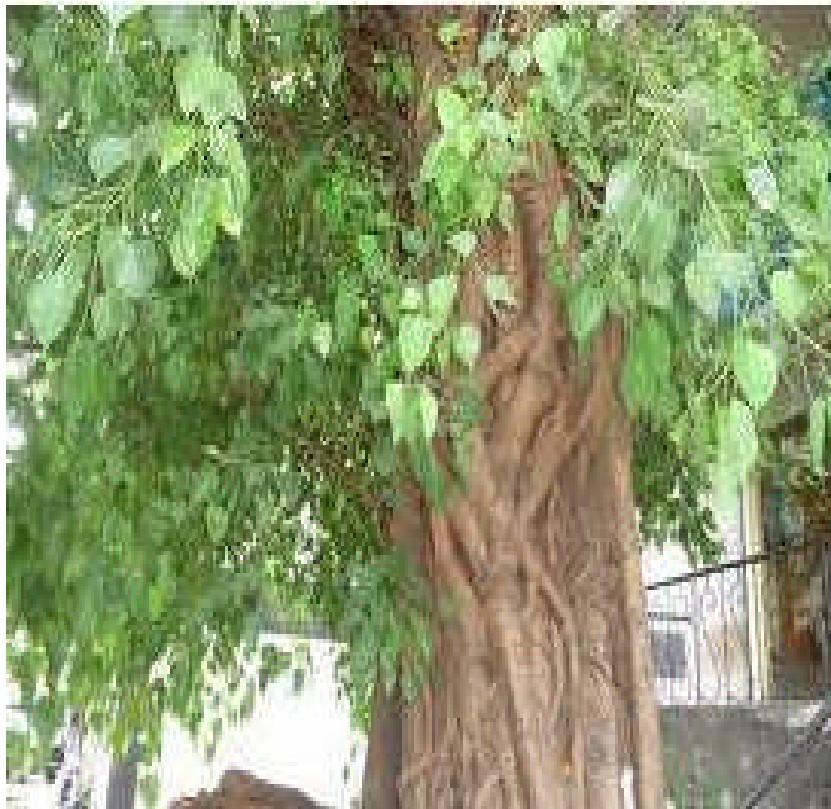
# Mango



# Peru (guava)



# Peepal Tree



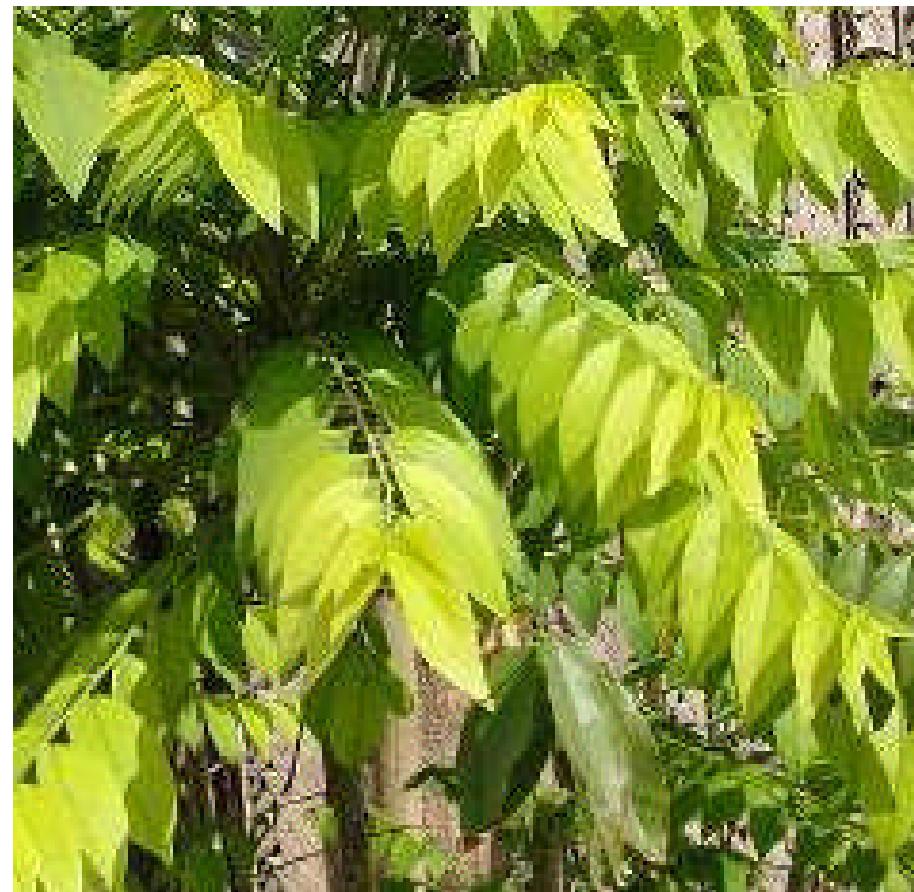
# Neem



# Henna (Mehndi) shrub



# Amla tree



# Kokum



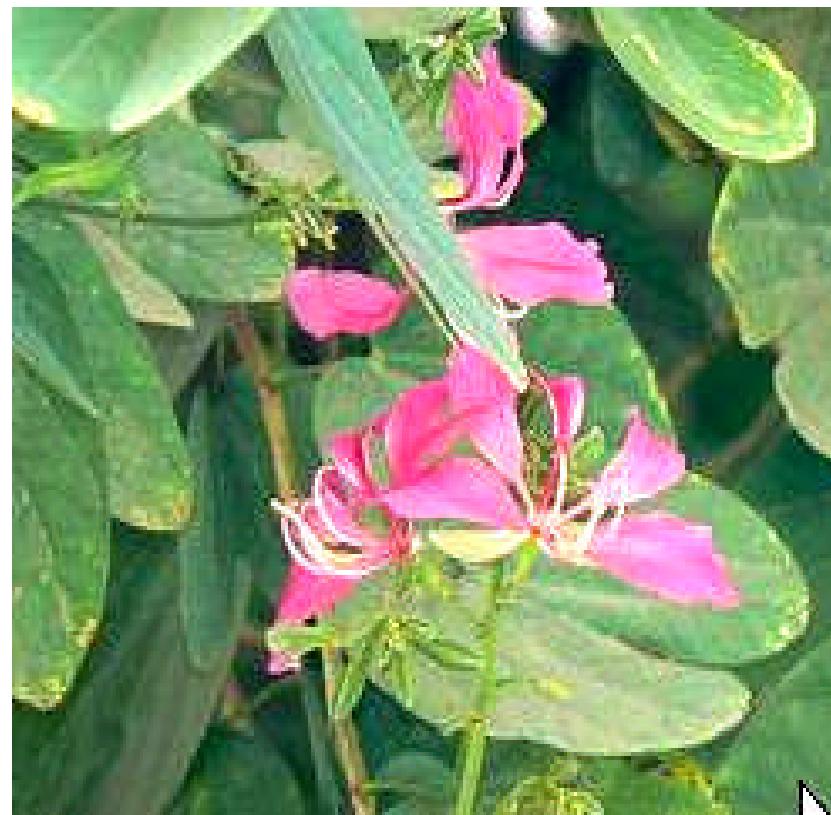
# Guava (Peru)



# Jackfruit



# Kanchan



# Amaltas



# Copper pod



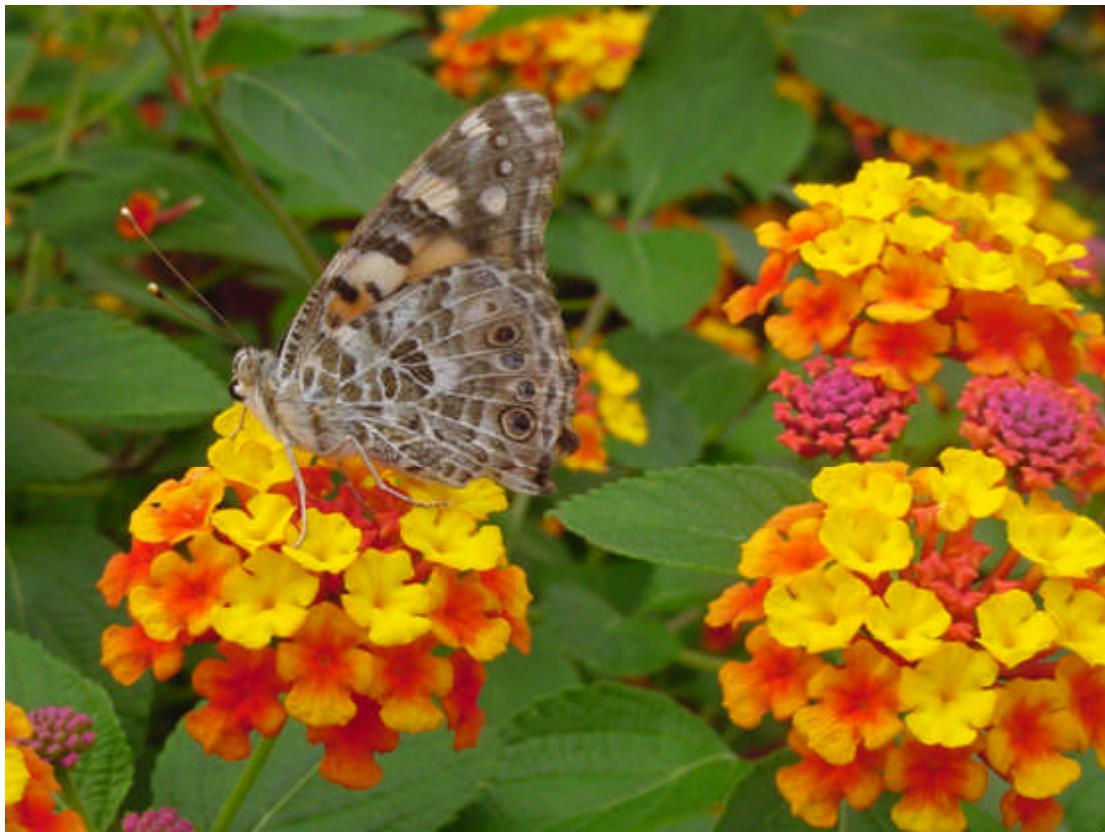
# Gul mohur



# Caesalpinia (*Sappanga*)



# Lantana



**Common name:** Lantana • Hindi: Raimuniya राईमुनिया •

Kannada: Kakke, Natahu

**Botanical name:** *Lantana camara* var. *aculeata*

**Family:** Verbenaceae (Verbena family)

From <http://www.flowersofindia.net/catalog/slides/Lantana.html>

# African Tulip tree



# Rain tree



# Malabar almond



# Imli, tamarind



# Teak



# wood apple

(Belada Hannu , Byalada Hannu, Bel)



# Papaya



# Supari, Arecanut



# Coconut



# Indian wild date palm



# Toddy palm



# fantail palm



# Cypress tree



# *Cycus palm*



# White jamun (jaam)



# Chikoo, sapota





# Clove



# Starfruit (kaparakshi hannu)



# Ramphal, custard apple



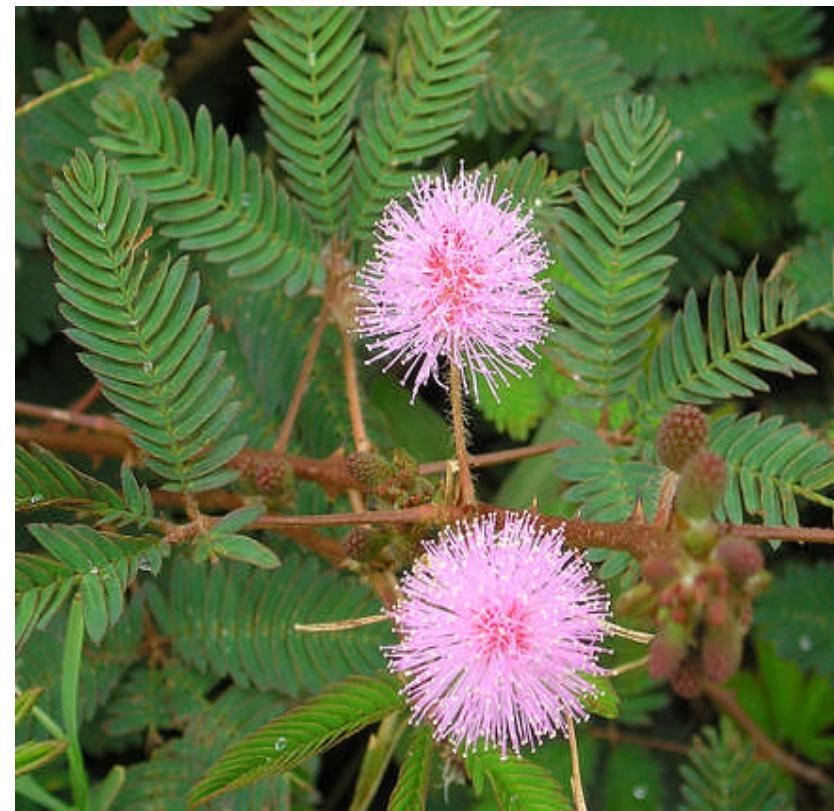
# Golden Duranta



# Croton



# Touch me not (*mimosa pudica*)



# Tulsi



# Local Birds

Mohsin, JKSHIM, 7/2014.

# Pigeon



# Crow



Raven

# Sparrow

---



# Myna



# Magpie Robin



# Peacock



# Parrot, parakeet



# Kingfisher



# Bee-eater



# Bulbul (red whiskered vented)



# Drongo, kotwal



# Racquet tailed Drongo



# Brahminy Kite



# Pariah Kite



# Indian spotted Eagle

- Eagle or kite? •Eagles are larger.



# Vulture (huge wingspan)

Why is the  
neck bald?



# Owl



# Munia



sunbird



# Spotted Dove



# Cattle Egret



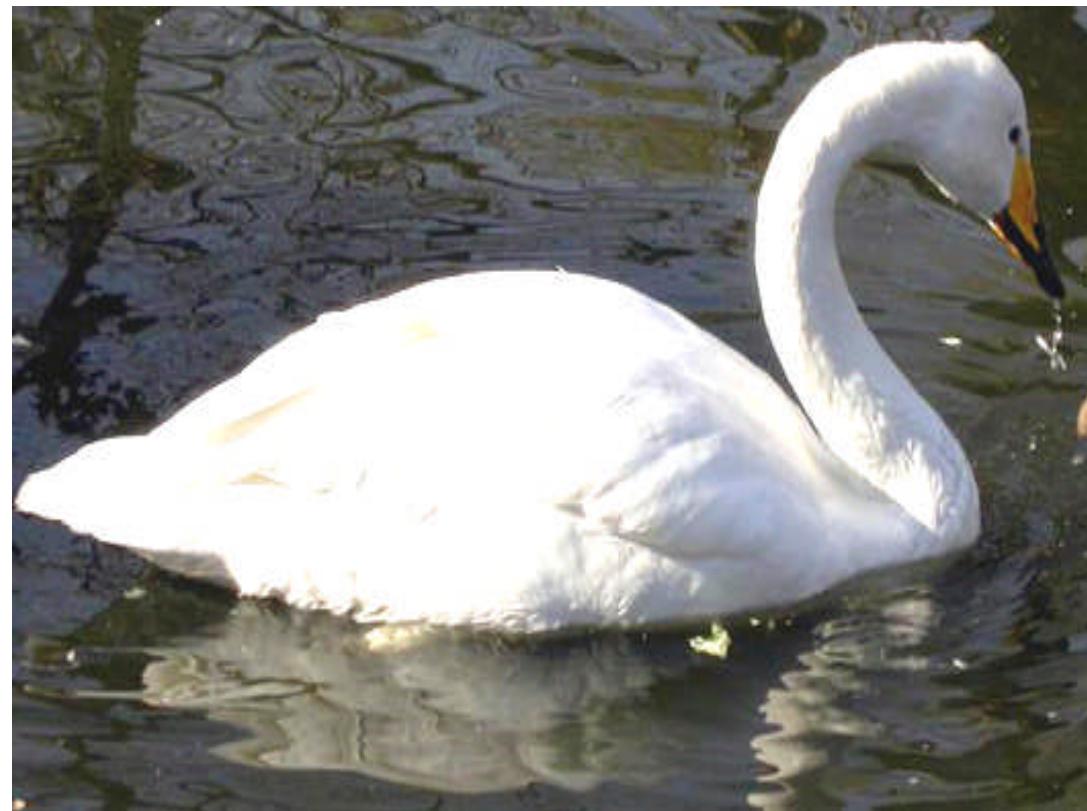
# Pond Heron



# Duck



# Swan



# Crow pheasant, Bharadwaj



# Woodpecker



# Shrike



# Birds

- Sparrow
- Pigeons
- Crows
- Myna
- Peacock
- Parrot
- King fisher
- Bulbul
- Drongo
- Bee eater
- Munnia
- Sun bird
- Kite (not Eagle)
- Brahminy Kite
- Pariah Kite
- Vulture

# Butterflies

Mohsin, JKSHIM, 7/2014.

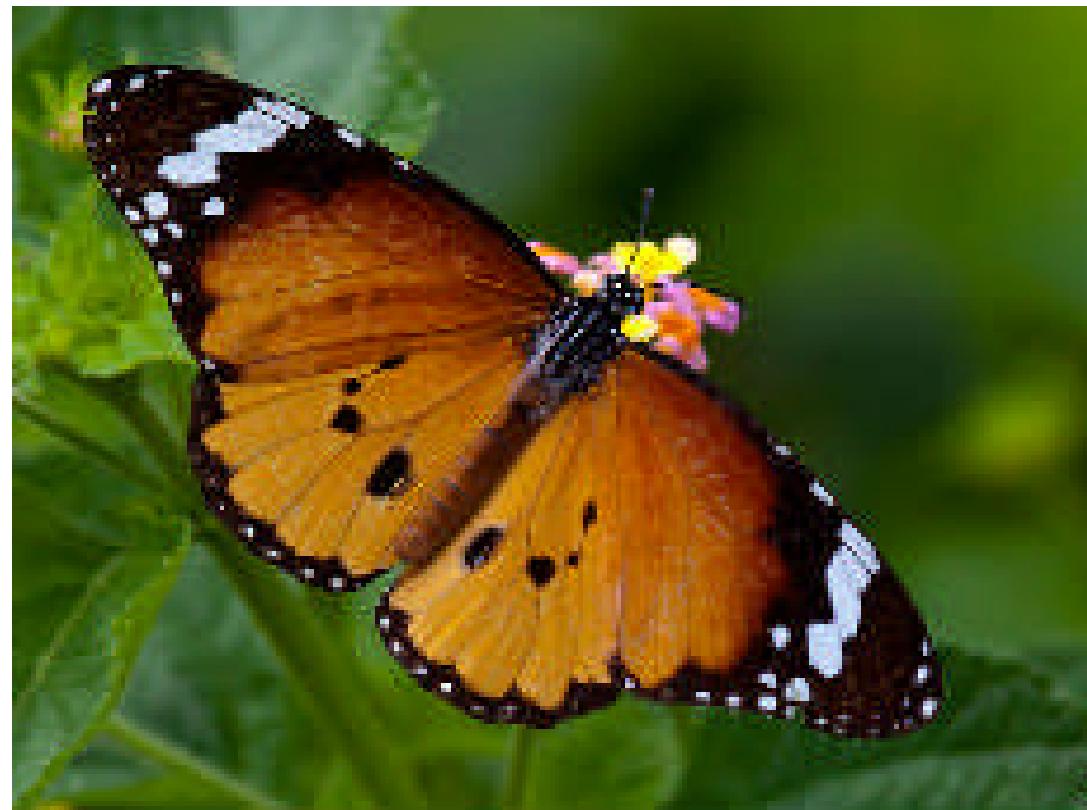
# Common crow



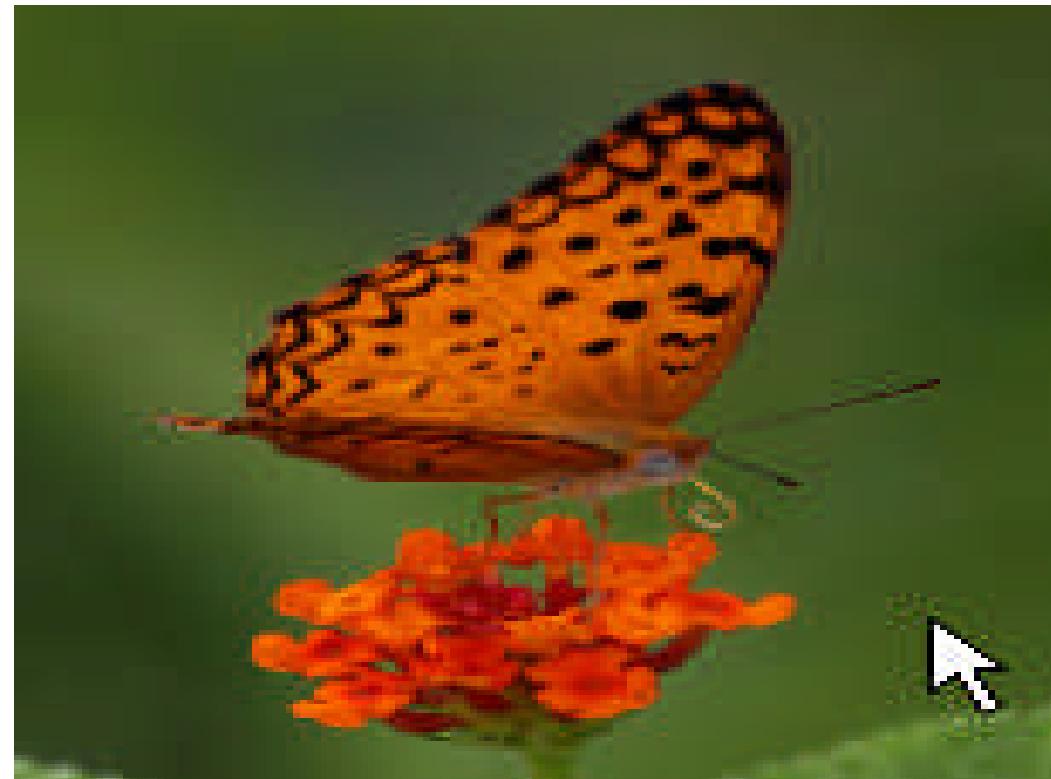
common tiger



# Plain tiger



# Common Leopard

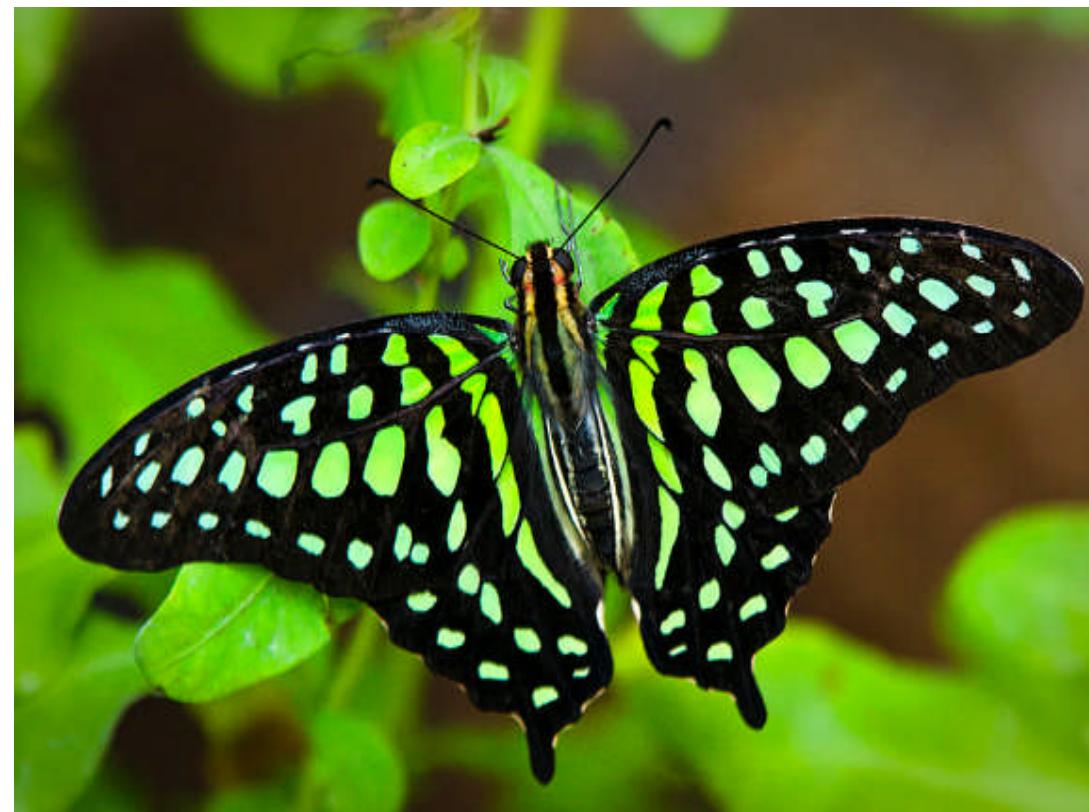


# Jezebel

What  
does  
this  
name  
mean?



# Tail Jay



# Blue tiger



# Grass yellow



# Common sailor

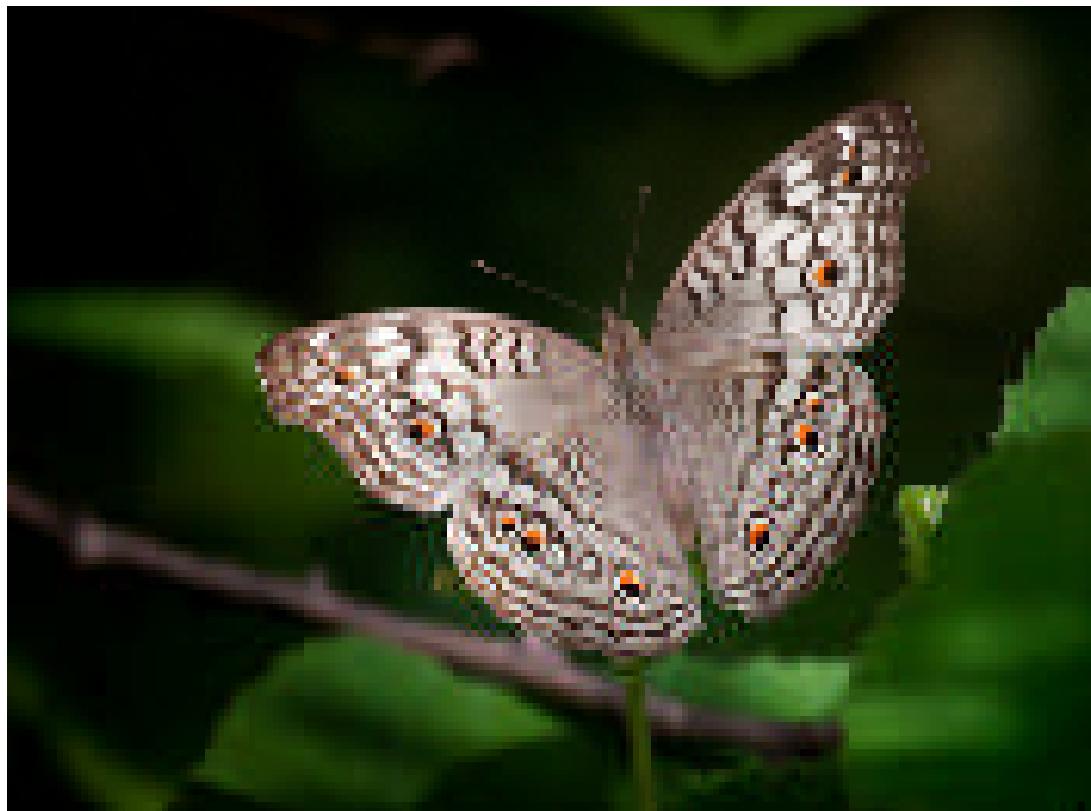


©Benedict Tay

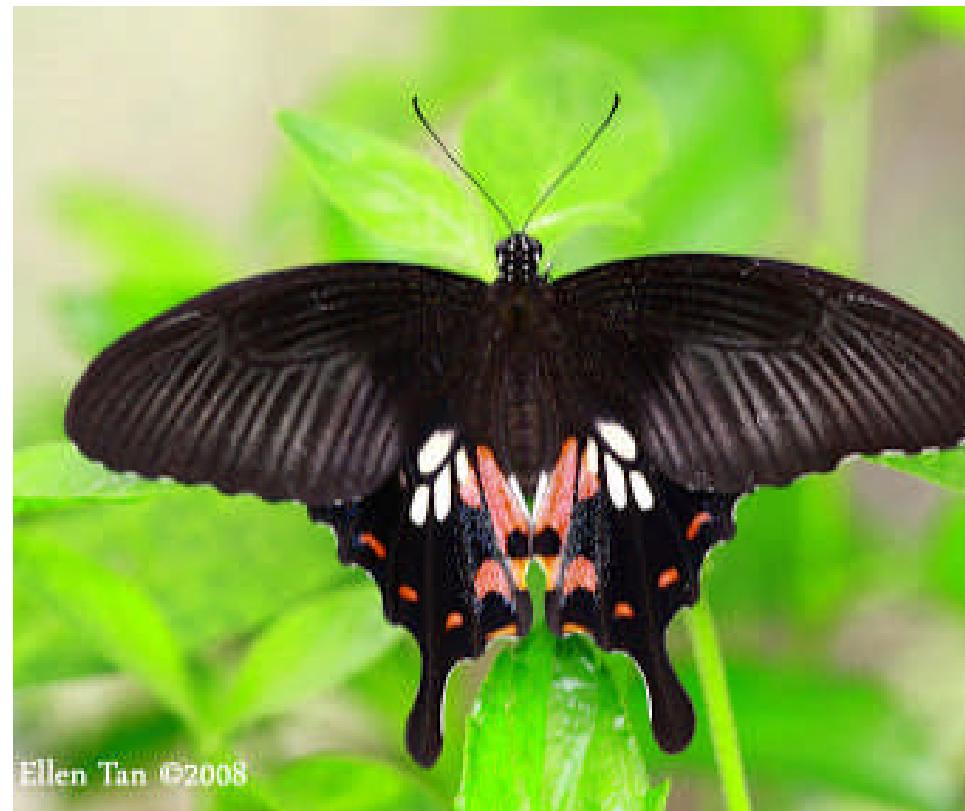
# Danaid eggfly



# Grey Pansy



# Common Mormon



Ellen Tan ©2008

# Local Snakes

Mohsin, JKSHIM, 7/2014.

# Snakes

Big 4 poisonous snakes

- Cobra
- Krait
- vipers (russell and sandy)



# Non poisonous snakes

# Rat snake



# Python



# Garter snake



# **Green vine snake or Long-nosed whip snake**



# Good diet



# Balanced Diet

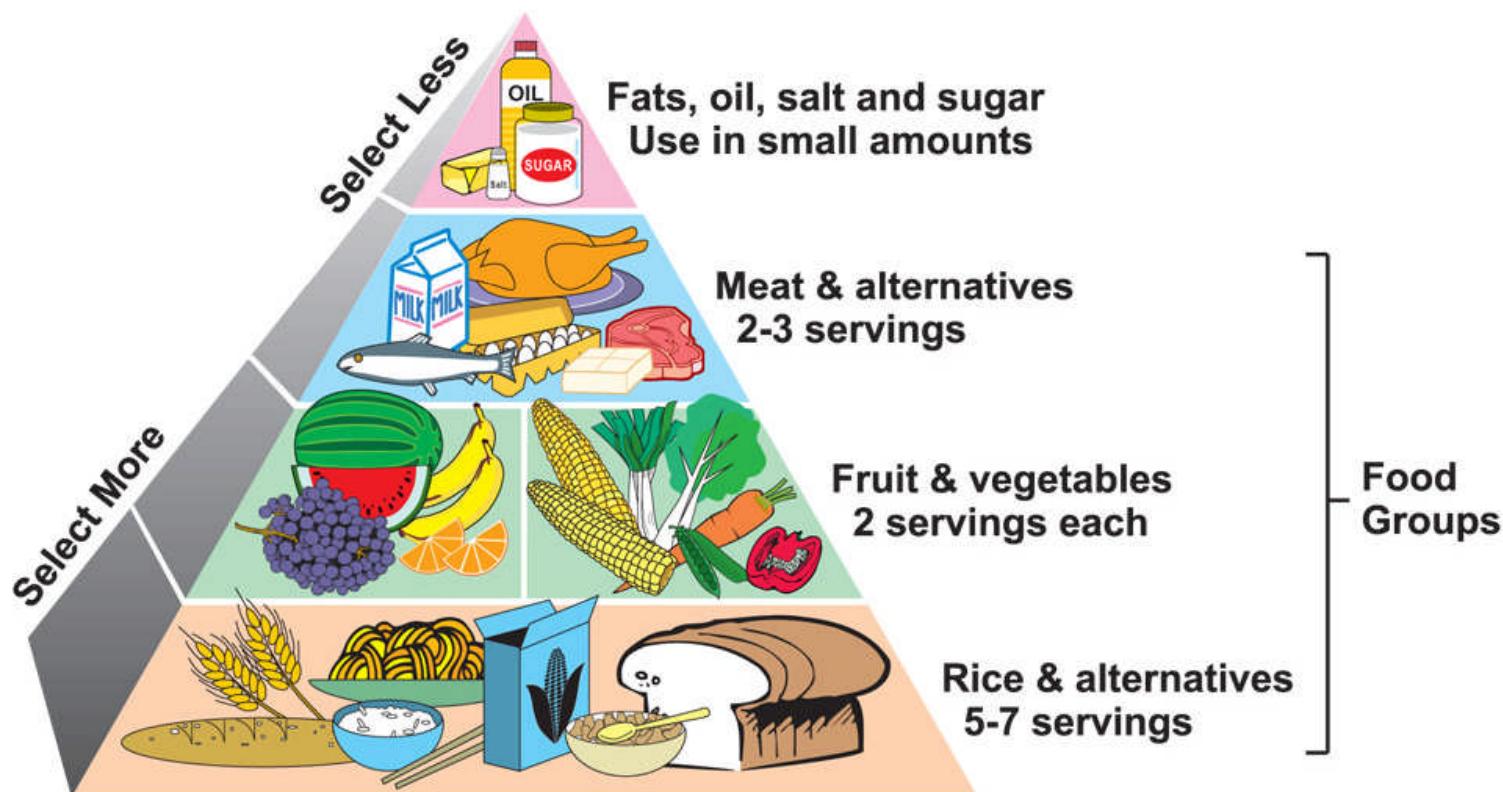


# Balanced Diet

- Omega 3
- Fruits and Veg
- Dairy
- Cereals (Wheat, rice).



# Food Pyramid



# Organic food



# Milk

- Avoid rBGH hormones in milk.
- Boil milk to avoid TB.



# Water

- Drink clean, filtered water.
- Carry water bottle
- Boil water from wells, rivers, tankers.
- Avoid drinking water from stagnant tanks/pools.
- Major cause of cholera.



# Drinks

- Plenty of water
- Fruit juice
- Coconut water

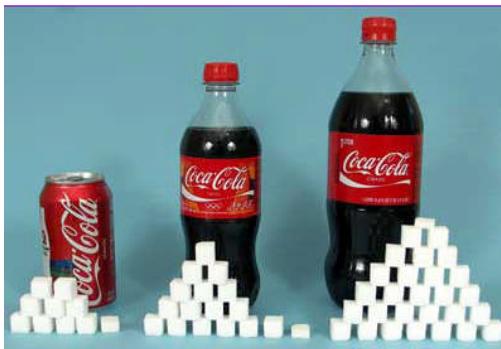


# Drinks

- Less of carbonated sugared drinks



# Sugar in drinks



- See <http://www.sugarstacks.com/beverages.htm>

## Drinks, smoking and medicines?

Avoid alcohol and  
drugs that have  
not been  
prescribed to you



# Food and Nutrition

Mohsin, JKSHIM, 7-2014.

# Nutrition and Happiness

- Unhappy Boys lose weight
- Unhappy Girls gain weight
- Wealth is useless without Health
- Nutrition has long term effects on obesity, cancer, diabetes, ..
- Hard to find exact cause, but statistics show that certain lifestyles cause health problems after many years.

# Basics

To survive we require:

- Fluids (water and salts).
- Starch (energy).
- Proteins (body mass, muscles).
- Vitamins, minerals, oils.

See [http://en.wikipedia.org/wiki/Dietary\\_element](http://en.wikipedia.org/wiki/Dietary_element)

# Balanced diet

## The eatwell plate

Use the eatwell plate to help you get the balance right. It shows how much of what you eat should come from each food group.



# Fluids for Hydration

- Drink enough water (10 cups/day).
- Boil the water if the source is an open well or stream.
- Dehydration is caused by sweating in heat alcohol drinking and diarrhea (loose motion in cholera).
- Rehydration requires water + salt + Potassium salts (coconut water) + glucose (or sugar).

# What to drink?

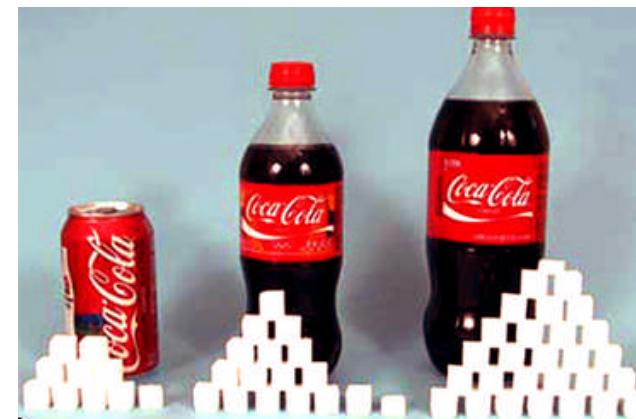


OR



# High fructose sugar?

Soft drinks contain too much high fructose syrup.



# sugar in soft drinks?

- Sports Drink – 2 teaspoons
- Lemonade – over 6 teaspoons
- Orange Juice – over 7 teaspoons
- Sweet Tea – over 8 teaspoons
- Powdered Drink Mix – 9 teaspoons
- Cola – over 10 teaspoons
- Fruit Punch – over 11 teaspoons
- Root Bear – over 11 teaspoons
- Grape Juice – 12 teaspoons
- Orange Soda – 13 teaspoons



# High Fructose diet

- High-Fructose Diet Slows the Mind, Hampering Memory and Learning



# Banned in NY schools?



- people that consume 4 drinks per day were 30% more likely to have problems with depression.

# Coconut water



1/2 teaspoon of sugar, 2 gm.

Nutritional value per 100 g (3.5 oz)		
<b>Energy</b>	79 kJ (19 kcal)	
<b>Carbohydrates</b>	3.71 g	
Sugars	2.61 g	
Dietary fibre	1.1 g	
<b>Fat</b>	0.2 g	
<b>Protein</b>	0.72 g	
<b>Vitamins</b>		
Vitamin A equiv.	0 µg	(0%)
beta-carotene	0 µg	(0%)
lutein zeaxanthin	0 µg	
Thiamine (B <sub>1</sub> )	0.03 mg	(3%)
Riboflavin (B <sub>2</sub> )	0.057 mg	(5%)
Niacin (B <sub>3</sub> )	0.08 mg	(1%)
Pantothenic acid (B <sub>5</sub> )	0.043 mg	(1%)
Vitamin B <sub>6</sub>	0.032 mg	(2%)
Folate (B <sub>9</sub> )	3 µg	(1%)
Vitamin C	2.4 mg	(3%)
Vitamin E	0 mg	(0%)
Vitamin K	0 µg	(0%)
<b>Trace metals</b>		
Calcium	24 mg	(2%)
Iron	0.29 mg	(2%)
Magnesium	25 mg	(7%)
Phosphorus	20 mg	(3%)
Potassium	250 mg	(5%)
Zinc	0.1 mg	(1%)
<b>Other constituents</b>		
Water	94.99 g	

# Simple Carbs

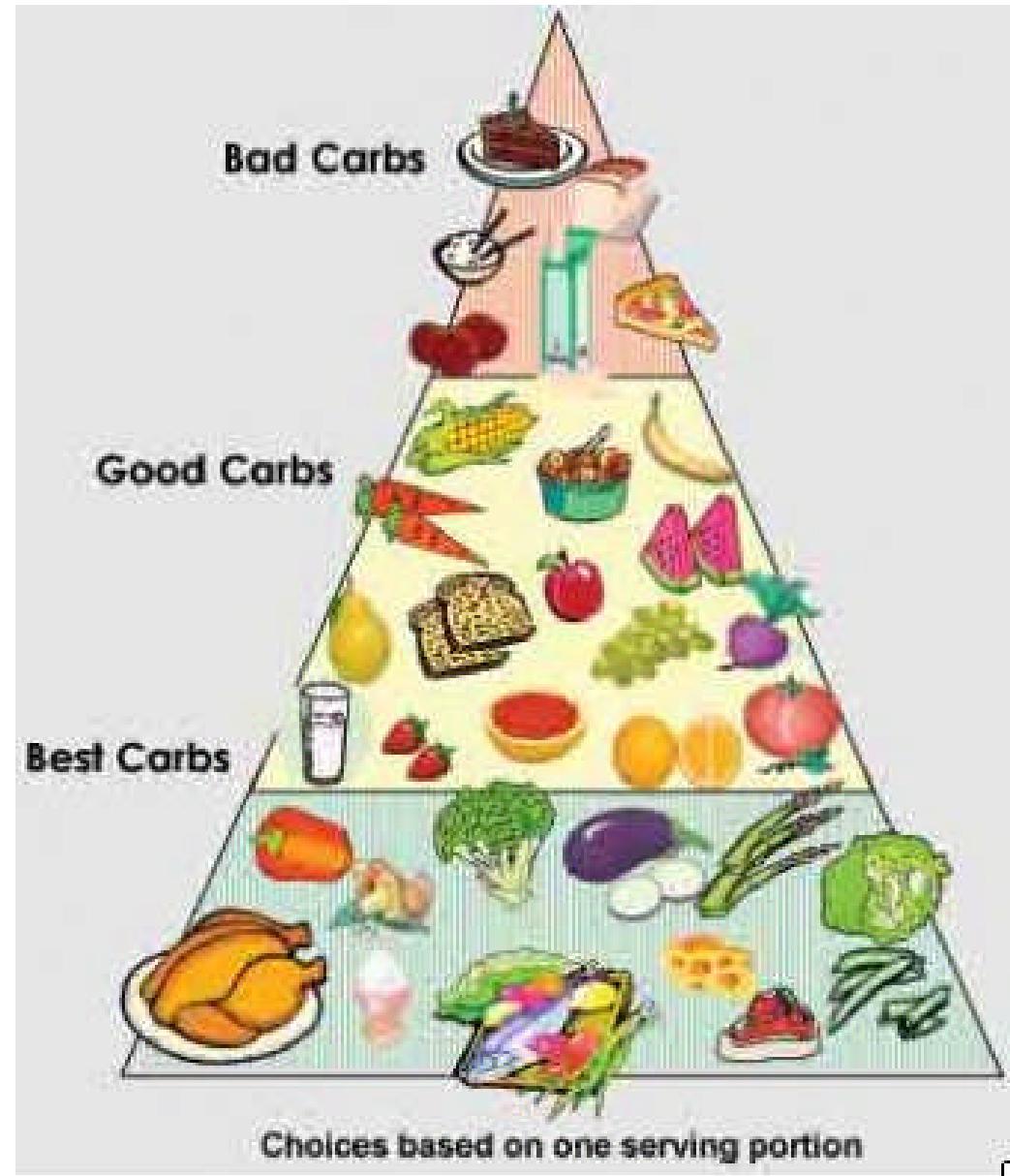
Simple carbohydrates

Simple carbohydrates are found in foods such as fruits, milk, and vegetables

Cake, candy, and other refined sugar products are simple sugars which also provide energy but lack vitamins, minerals, and fiber



# Good and bad carbs



# Carbohydrates – energy source

Bread (wheat and rice flour), roti, chappati, cereals, pasta.

Energy measured in calories.

Body converts excess carbs into fat and saves it for winter.



# Proteins

- Proteins build muscles and body mass.
- We get proteins from meat, fish, beans, peanuts, lentils (dal).



# Proteins are made of amino acids

- Nine amino acids are essential for humans, and must be obtained from diet (cannot be produced).
- They are found in: eggs, soy, pulse (beans), white fish.

# Proteins from Vegetables

- Tofu (bean curd)
- Lentils or Dal (toor dal is brain food).
- Peanuts
- Beans, Rajma.



# Meats

- Fish
- Eggs
- Chicken
- Mutton
- Beef
- Pork
- etc

# Mercury Poison in fish

- Mercury and lead cause brain damage.
- Mercury is used in CFL bulbs and tubelights. In US, you cannot throw this in garbage, because it will pollute the watertable below the garbage dump.
- Mercury is found in fish, more in large fish.

# Lead and arsenic poisons

- Lead was used in pipes, bullets and hats (mad hatter). Lead was responsible for madness and fall of Roman empire.
- Search on google and read.

# Fish is brain food

- Small fish (white meat): smelt, sardines, anchovies, mackerel, pomfret, etc.
- Medium fish: king fish, salmon (red meat).



Pomfret



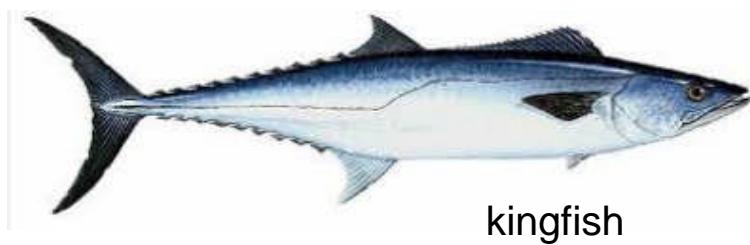
Sardine



mackerel



Salmon



kingfish

# Fish is brain food

- Large fish (red meat) are cheaper but they contain more mercury and should be avoided:  
Tuna (shark family), whale, cat fish.



Tuna



catfish

# Tuna fish is cheap



# Sea food

- Prawns and shrimp, difficult to clean



# Fish oil

- If you don't like fish smell, but need it in your diet, take fish oil capsules (cod liver oil, fish oil).



# Chicken proteins

- Chicken leg (red meat) and wings (white meat) have different proteins.

[http://en.wikipedia.org/wiki/Chicken\\_\(food\)](http://en.wikipedia.org/wiki/Chicken_(food))

# Chicken farm



Farm raised chicken (photo from Mangalore chicken shop).



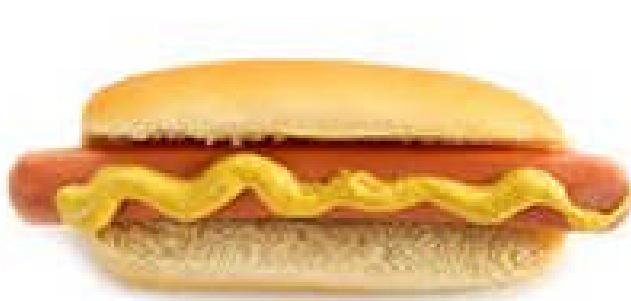
# Growth hormones fed to chicken end up in humans

Antibiotics fed to animals effect people.



# Hot dog

- Made in a factory from leftover parts of meat (see on youtube).



# rBGH hormone



**NORMAL GRASS FED  
COW**

**GROWTH HORMONE +  
ANTIBIOTICS + CORN FED**

# Milk

- Always boil milk or you will get TB.
- Lactose intolerance as you get older



# Curd

*Curdling* (coagulating) milk with renet or any edible acidic substance such as lemon juice orvinegar, and then allowing it to set.

The increased acidity causes the milk proteins (casein) to tangle into solid masses, or *curds*.

Remaining liquid, which contains only whey proteins, is the whey.



Lactobacillus is a kind of bacteria which can convert a sugar into an acid by means of fermentation. It converts the lactose into lactic acid, which imparts the sour taste to curd.

# Cheese

- Milk is curdled by adding acids such as vinegar or lemon juice. Most cheeses are acidified to a lesser degree by bacteria, which turn milk sugars into lactic acid, and adding rennet to make cheese.
- 8000BC very old art.



Cheese is valued for its portability, long life, and high content of fat, protein, calcium, and phosphorus.

See <http://en.wikipedia.org/wiki/Cheese>

# Cheese

Cheese is concentrated milk, high in fat,  
useful for longer storage and travel.

Cheese consumption is the leading  
contributor of **saturated fat** in the U.S. diet,  
increases **LDL cholesterol** and CVD  
**(cardiovascular disease)**.

See <http://en.wikipedia.org/wiki/Cheese>

# Gelatin

- Made by boiling waste bones.
- Classified as vegetarian by FDA.
- Used in jelly beans, jelly, foods.



# Alcohol

- Wine is fruit juice preserved in alcohol for winter, before refrigerator (till 1900).
- Alcohol is made by fermenting sweet juices (sugars are digested by yeast).
- Hard liquors, whiskey, rum, vodka – to get drunk.
- Bad for the brain, liver, body.
- Alcoholism is addiction to alcohol, AA.

# Beer

Light



Dark Ale



Pale



Stout



Beer on tap in a bar



Beer Keg



# Liqueurs (dessert)

Liqueurs are very sweet and often syrupy, flavoured with fruit, cream, herbs, spices, flowers or nuts, with high alcohol to preserve the flavours.



**BAILEYS &  
KAHLUA**

# How to open Champagne bottle?

# Dessert wines

- Served with sweets, ice-cream after dinner, in small quantity (10ml).
- Sweet wines: Moscato, straw (raisin), Riesling, sherry, port,
- Sparkling wines: champagne.
- See <http://winefolly.com/review/types-dessert-wine/> and [http://en.wikipedia.org/wiki/Dessert\\_wine](http://en.wikipedia.org/wiki/Dessert_wine)



# Google office



# Oils

- Cooking oils: Saffola, Canola, Sunflower for high temperature frying.
- Question: What happens if you fry pooris at lower temperature?
- Cheap oils: Dalda, Veg oils.
- Salad oils: Ghee, Butter, Olive, Walnut, Almond, Sesame oils.
  - Not for frying, as they burn easily.

Olives - produced in south Europe since 1000s BC



# Omega 3 and Olive oil

- “First cold pressed” “extra virgin” olive oil.
- 1% acid; considered the finest and fruitiest, and thus the most expensive
- “Cold” refers to the olives being kept no higher than 28 °C, and “pressed” refers to the method of extraction.
- no heat or chemical additives in extraction
- the olive oil keeps its full nutritional value.
- see [http://en.wikipedia.org/wiki/Olive\\_oil](http://en.wikipedia.org/wiki/Olive_oil)

# Fats

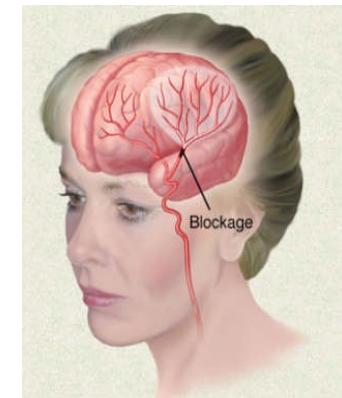
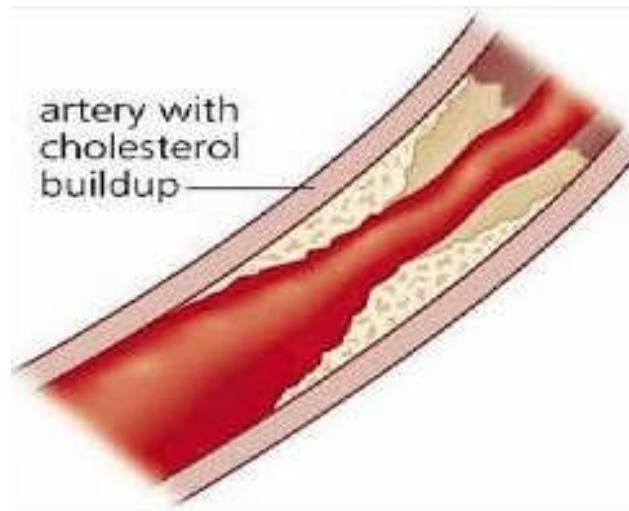
- The fat found in butter, margarine, soft spreads, and vegetable oils is considered either good (unsaturated) or bad (saturated and trans-fat).
- Good: Unsaturated fats (mono-unsaturated and poly-un-saturated) prevent clogged arteries that block the flow of blood to the heart and brain.
- Unsaturated fats should be used in cooking.

## Good: Mono-Sat fats

- Monounsaturated fat is the primary type found in olive, canola, and sesame oils, as well as in avocados and avocado oil, and in nuts and their oils.
- Polyunsaturated fat is prevalent in corn, cottonseed, and safflower oils; sunflower seeds and sunflower oil; flaxseed and flaxseed oil; soybeans and soybean oil; tub margarine and soft spreads; and seafood.

# Bad: Saturated fat

- Saturated fat increases the risk of blocked blood vessels.
- Heart attack, stroke, etc.



## Bad: Saturated fat

- Found in fatty meats, and in full-fat dairy foods - butter, cheese, ice cream, and whole milk (lots of dietary cholesterol).
- Coconut oil, palm, palm kernel oil, and cocoa butter supply large amounts of saturated fat, too, but are cholesterol-free.

## Bad: Trans-fat

- Trans fat, (or **trans fatty acids**) are created by hydrogenating vegetable-oils into solids. Eg. Dalda is “**partially hydrogenated oils.**”
- *Trans fat raises your*
  - increase “**bad**” (*LDL*) cholesterol
  - lowers your “**good**” (*HDL*) cholesterol. .

# Bread, Chappati, Roti, Naan, Poori



# Cooking

Mohsin, JKSHIM, 7-2014.

# Cooking basics

- Cleanliness, Wash veg, hands, vessels.
- Balance Acidity/Base in foods.
  - Mildly Acidic: Lemon, Curd, Kokum, Tamarind
  - Basic: Brinjal, Papaya
- Saliva in mouth breaks down starch into sugar.
- HCL acid in stomach digests the food.
- Bacteria in intestines digests the food.

# Spices

- Chillies - anti cancer
- Turmeric - antibiotic
- Mustard
- Ginger
- Garlic
- Curry leaves

# spices 1

Spices



cloves



black peppercorns



star anise



cinnamon



nutmeg



ginger



saffron



turmeric



paprika

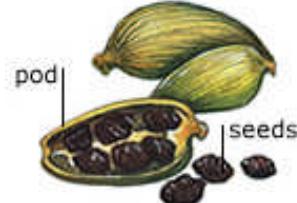
Red chilly powder



cumin seeds



coriander seeds



cardamom

# spices 2



# spices 3



spices 4



# spices 5



Cardamom – warming



Coconut – smoothing



Curry leaves – fresh



Saffron – aroma



Star Anise – Licorice



Jaggery – sweet

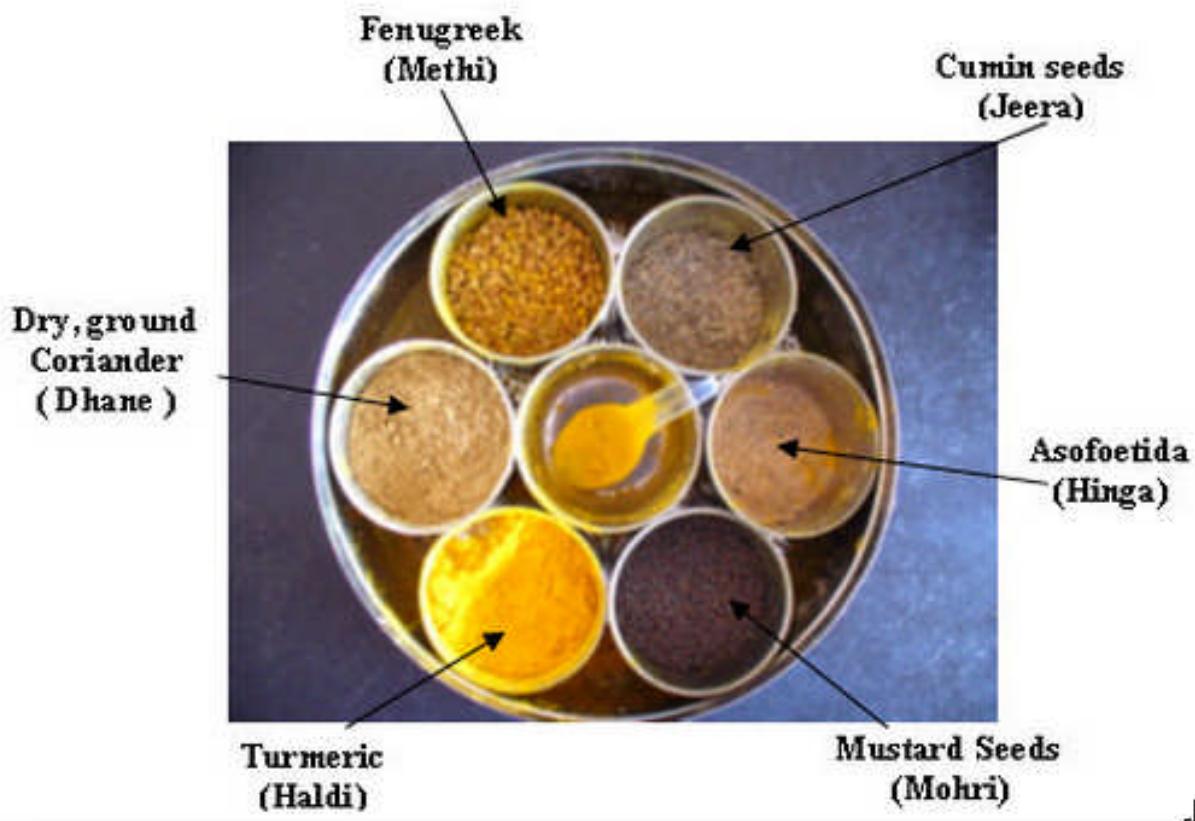


Chilli – fiery



Tamarind – fruit / sour

# cooking spices 1



# cooking spices 1



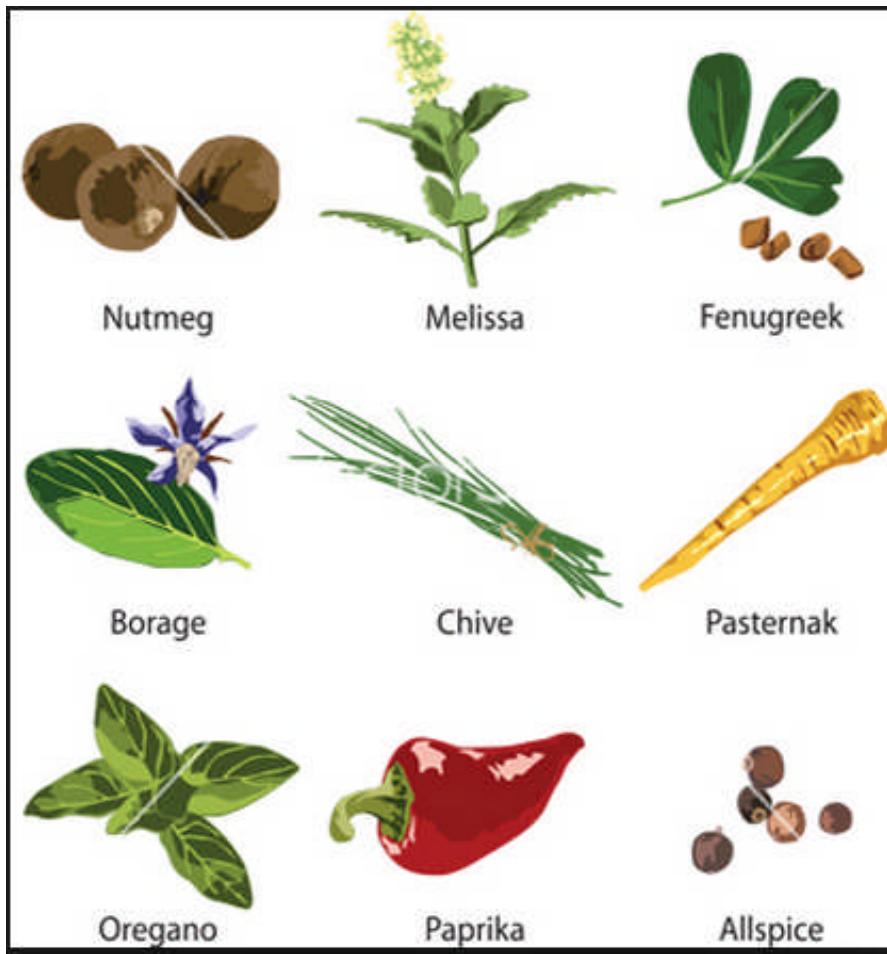
# US spices 1



# US spices 2



# US spices 3



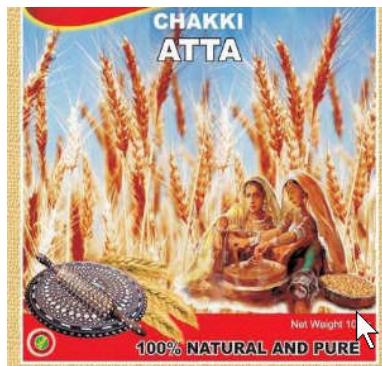
# Maida roti

- Maida (refined flour), harder to digest, lack of fibre, elastic dough.
- Roti and Nan, fermented overnight with yeast or baking powder (not good), also called leavened bread.
- Need oven to cook.



# Whole wheat Chappati

- Atta (whole wheat flour) is made from flour of wheat, more fibre, harder to roll dough.
- Chappati (also called unleavened bread).
- Cooked on fire and pan without oven.



# Kneading

- Atta and water are mixed thoroughly for about 15 minutes to make it elastic, before making chappati / roti / bread.
- Add one spoon oil and pinch of salt, for taste.
- Otherwise chappati will break up.



See <http://en.wikipedia.org/wiki/Kneading>

# Making chappati is easy with practice



# Roasting chappati

- Roast one side lightly.
- Roast second side till steam forms inside it.
- Be careful of the steam, it will burn your fingers.



# Fermenting dough for bread

- Fermentation occurs when yeast and bacteria inside the dough convert carbohydrates to carbon dioxide causing gas bubbles to form, which has a leavening effect on dough.
- This process is very similar to wine, beer and sour kraut and causes a strong aromatic sensation that is usually pleasing.
- The gas bubbles expand inside the dough making the dough appear larger, this is called leavening. There are two theories for the origins of leavened bread dating back to Antiquity:
- Egyptian beer was added to in lieu of water, thus introducing yeast into the dough.
- A piece of dough was forgotten, leavened by ambient yeast and later baked.

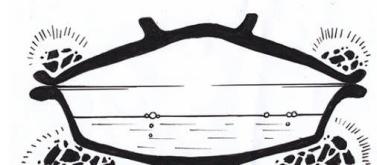


# Bread recipes

- Flour (maida, wheat, ragi, jowar, lots).
- Water, olive oil, salt, sugar, yeast, spices.
- Knead the dough
- Ferment at warm temperature for few hours.
- Bake at lower temperature, 350 to 425C for 30 to 45 minutes (more brown crust).

# Baking bread

- Oven: traditional, bread machine, dutch oven.



# Buying and Cooking fish

- Buying
  - body must be firm and supple to touch,
  - gills must be reddish (not brown or black),
  - skin should be shiny not pale.
- Cleaning
  - Remove scales, fins, gut, wash with clean water.
- Cooking
  - Spices: salt, turmeric, chillies, garlic.
  - Shallow fry or bake.

# Methods of cooking

From <http://en.wikipedia.org/wiki/>

Category:Cooking\_techniques

**Blanching** - is a cooking process wherein the food substance, usually a vegetable or fruit, is plunged into boiling water, removed after a brief, timed interval ..

**Broiling** - heat source for grilling comes from above, grilling is termed **broiling**.

**Sautéing** (tossing while cooking) is a method of cooking food, that uses a small amount of oil.

# Pressure cooker

Pressure cooking allows food to be cooked with greater humidity and higher temperatures than possible with conventional boiling or steaming methods.

For beans.

Careful, high pressure!



# Steaming

**Steaming** is a method of cooking using steam. **Steaming** is considered a healthy cooking technique and capable of cooking almost all kinds of food.

# Grilling

- **Grilling** is a form of cooking that involves dry heat applied to the surface of **food**, commonly from above or below



# Quiz

# Rules

- 2 contestants from each section (A, B, C).
- 1 Score keeper.
- Turns: round robin (A>B>C>A..)
- Each question is flashed, and teams can give answer in 15 seconds, then next team can try same question and pick a different answer.
- After all 3 have replied, the answer is checked.
- Marks: 20, 10, 5.
- Unanswered questions maybe passed to audience.
- Total marks will be recorded for each section.

# Sample Quiz

Quiz -- GRE word

file:///C:/quiz/gre/words\_college\_gre\_words-quiz-01.htm

Quiz 1 of 50 -- GRE word definitions

Number	Question	Answer	Your answer
1	presentient	correct, answer is 1	1 <input checked="" type="radio"/> adj. Perceiving or feeling beforehand. 2 <input type="radio"/> v. To keep clear of. 3 <input type="radio"/> adj. Guilty. 4 <input type="radio"/> adj. Recurring every seven years. 5 <input type="radio"/> n. A book whose leaves are so made to form paper frames for holding photographs or the like.
2	eminent	wrong, answer is 5	1 <input checked="" type="radio"/> v. To become or cause to become withered or dry. 2 <input type="radio"/> adj. Able to reinforce sound by sympathetic vibrations. 3 <input type="radio"/> v. To overcome by force. 4 <input type="radio"/> adj. Two-sided. 5 <input type="radio"/> adj. High in station, merit, or esteem.
3	operate		1 <input type="radio"/> adj. Capable of being remedied or corrected. 2 <input type="radio"/> adj. Open to ridicule. 3 <input type="radio"/> adj. Efficient. 4 <input type="radio"/> v. To put in action and supervise the working of. 5 <input type="radio"/> v. To drive out or away.

# Sample Quiz

Quiz -- GRE Synon x

file:///C:/quiz/words/words\_college\_gre\_synonyms-01

Quiz 1 -- GRE Synonyms

Number	Question	Answer	Your answer	choices
1	Extol	correct, it is Applaud	Applaud	choices:, (1). Erotic, (2). Applaud, (3). Bawdy, (4). Curative, (5). Asperity
2	Rueful	wrong, it is Contrite	Daze	choices:, (1). Stereotyped, (2). Daze, (3). Befitting, (4). Contrite, (5). Honorable
3	Remorseful		.....	choices:, (1). Affable, (2). Belligerent, (3). Etiquette, (4). Contrite, (5). Cavil

Can you read these  
words and sentences loudly?

And explain the multiple  
meaning of the words.



He **read** the **red** book

# 1 Read these loudly

1. Must I **read red** books now? I never **read red** books in the past, nor will I **read red** books in future.
2. He **rose** to give **Rose** a **rose rose**.
3. He will **lead** the students to the **lead** pencil shop.
4. He **led** the soldiers with a **lead** gun.
5. The bandage was **wound** around the **wound**.
6. The farm was used to **produce** **produce**.
7. The dump was so full that it had to **refuse** more **refuse**.
8. We must **polish** the **Polish** furniture.

## 2 Read these loudly

1. The soldier decided to **desert** his **dessert** in the **desert**.
2. Since there is no time like the **present**, he thought it was time to **present** the **present** to those **present** at the meeting.
3. A **bass** was painted on the head of the **bass** drum, by the **bass** guitarist.
4. The **dove dove** into the bushes on hearing the gun. Then the **does** flew away.
5. I did not **object** to the **object**.

### 3 Read these loudly

1. The insurance was **invalid** for the **invalid**.
2. There was a **row** among the oarsmen about how to **row** the boat.
3. You are too **close** to the door to **close** it.
4. A seamstress and a **sewer** fell down into a **sewer** drain.
5. The farmer taught his **sow** to **sow** seeds in the field.

## 4 Read these loudly

1. Please **wind** the **watch**, and **watch** for the wind from the fan.
2. Upon seeing the **tear** in the painting I shed a **tear**.
3. I had to **subject** the **subject** to a series of tests.
4. How can I **intimate** this news to my most **intimate** friend?

Can you spell these words?

# Are these correct spelling?

- |              |                                       |
|--------------|---------------------------------------|
| 1. Seperate  | 1. concious                           |
| 2. Garanty   | 2. assasination                       |
| 3. Mispell   | 3. calender                           |
| 4. Hier      | 4. chauffeur <small>chauffeur</small> |
| 5. Neice     | 5. colleague <small>colleague</small> |
| 6. acheive   | 6. commitee                           |
| 7. Rythm     | 7. ecstacy                            |
| 8. Occured   | 8. Farenheit                          |
| 9. Occurence | 9. florescent                         |

# Are these correct spelling?

- |                 |               |
|-----------------|---------------|
| 1. idiosyncracy | 1. forseeable |
| 2. interupt     | 2. foriegn    |
| 3. knowlege     | 3. goverment  |
| 4. millenium    | 4. gaurd      |
| 5. neccessary   | 5. garantee   |
| 6. noticable    | 6. harrass    |
| 7. occured      | 7. peice      |
| 8. ocassion     | 8. posession  |
| 9. persistant   | 9. propoganda |

# Are these correct spelling?

1. publicaly
2. recieve
3. religous
4. refered
5. resistence
6. seige
7. succesful
8. suprise
9. tendancy

1. tommorow
2. truely
3. unforseen
4. unfortunatly
5. wierd
6. whereever