

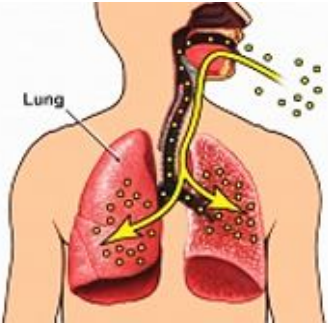
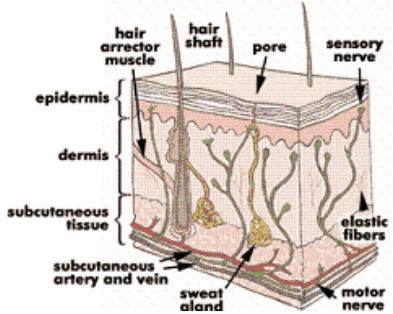
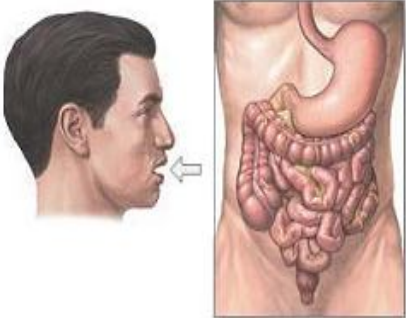
The topic for this week is “**The ABCs of Chemical Exposure**”.

Abbreviation:-

1) **MSDS** : Material Safety Data Sheet

- Always refer to MSDS to clearly know the [characteristic](#) of the chemicals and [precautions @ preventive measures](#) to be taken.

2) There are **3 routes of entry**:

	Route of Exposure	Description
(a)	Inhalation 	<ul style="list-style-type: none"> • Through breathing contaminant in the atmosphere. • Exposure through inhalation is most common, especially for airborne chemicals such as gases, vapors & particulate.
(b)	Absorption 	<ul style="list-style-type: none"> • Contact through skin or membrane (eg: eye). • Skin absorption is common for lipid soluble chemical especially in the form of liquid or mist. • Applicable for oil, grease & solvent.
(c)	Ingestion 	<ul style="list-style-type: none"> • May due to accidentally consume. • Exposure through ingestion is not common, nevertheless, poor personal hygiene and work practices might affected.

- 3) Exposure of hazardous chemicals may cause acute @ chronic effects and local @ systemic effects.

	Effects	Descriptions
(a)	Acute	<ul style="list-style-type: none"> Caused by <u>immediate @ short periods of exposure</u> after a <u>single exposure</u>.
(b)	Chronic	<ul style="list-style-type: none"> Caused by <u>long term</u> effects that resulted from <u>repeated or prolonged exposure</u> (continuing exposure day after day or week after week). <div> <p style="text-align: center;">Figure 18. Chronic effect</p> </div>
(c)	Local	<ul style="list-style-type: none"> Occurs at the <u>site of first contact</u> with the chemical. (eg: Skin burn when contact with strong acid due to corrosive action).
(d)	Systemic	<ul style="list-style-type: none"> Occurs at a <u>site distant from the initial point of contact</u> and takes place after a chemical has been <u>absorbed into the body</u>.

4) **Target organs.**

Hazardous chemicals caused adverse health effects at certain target organ which affecting our functional system.

Toxin	Target Organs
Neurotoxin	Central Nervous System
Hepatotoxin	Liver
Nephrotoxin	Kidney
Haematopoietic toxin	Blood Stream
Pulmonary toxin	Lungs
Reproductive toxin	Reproductive Organs
Dermatoxin	Skin, mucous membrane