Session 2: Physical Exercise and Guidelines
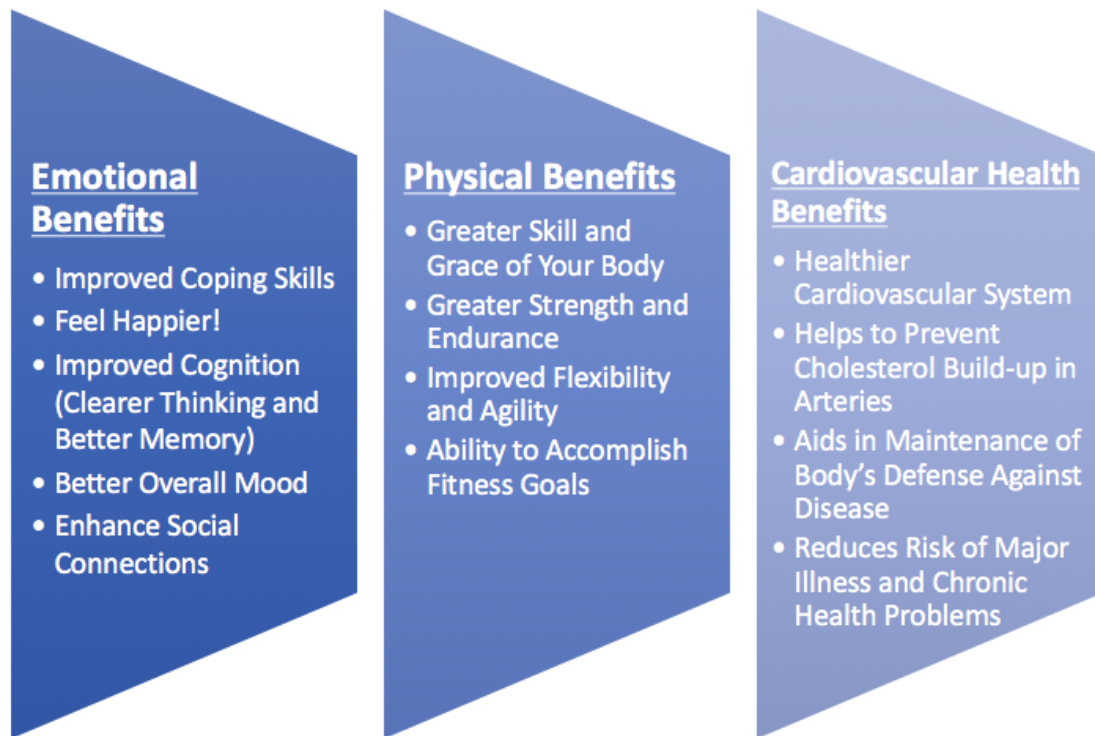
Physical Activity

Your Habits

At this point in your life you've developed a bunch of habits. For example, it's probably a habit for you to do laundry once a week...or once a month. Not all habits are healthy, especially some of the ones you pick up early on in life. Our goal is to help you develop or maintain your healthy eating and physical activity habits, so you're not left having to scramble to keep up when the going gets tough.

Before you can change a habit, you have to know what your habits are. Pretty basic, but you'd be surprised how many people have trouble actually estimating the time they spend sleeping, eating and working! This is why completing your nutrition, activity and sleep logs each week is one of the most important parts of the program.

Writing down what you're eating and doing will make you much more aware of how eating, physical activity, and your sleep patterns affect your health and well-being. You will be able to spot things you are doing well and things that can use some work. Research shows that people who track behaviors are more effective in changing them! However, meticulously tracking your eating and exercise habits isn't healthy either! To avoid this, try to think of your logs as a temporary way to figure out the changes that you'd like to see so that you can make healthier choices down the road. Keeping track may not be a healthy or sustainable habit to maintain forever.

Physical Activity

Physical activity gets you going, literally and figuratively. Exercise enhances your overall health and fitness and improves your ability to handle stress. Did you know that people who exercise regularly report an increased sense of well-being and self-esteem? Let's discuss a few benefits of physical activity...

Emotional Benefits

- Improved Coping Skills
- Feel Happier!
- Improved Cognition (Clearer Thinking and Better Memory)
- Better Overall Mood
- Enhance Social Connections

Physical Benefits

- Greater Skill and Grace of Your Body
- Greater Strength and Endurance
- Improved Flexibility and Agility
- Ability to Accomplish Fitness Goals

Cardiovascular Health Benefits

- Healthier Cardiovascular System
- Helps to Prevent Cholesterol Build-up in Arteries
- Aids in Maintenance of Body's Defense Against Disease
- Reduces Risk of Major Illness and Chronic Health Problems

Now that you have seen all the benefits of exercise, let's take a look at how much exercise you are doing now.

How Much Exercise Do You Get Right Now?

You only get one body, and you should be fully invested in the one you have. You don't have to be an elite athlete to get out there and take care of your body! Throughout this program, we encourage you to try to define exercise in a way that's palatable to you, and give it a shot.

Remember, exercise doesn't necessarily mean running the mile around the track. Pick exercise that you find fun! Also, you may enjoy it more if you make it a group thing. If you can take a yoga class with a friend or go hiking with your buddies, you can multitask by socializing as you sweat.

When you're done with the program, you can decide if you want to continue. Challenge yourself to a new workout schedule for 10 short weeks and then decide whether it works for you. You can always stop or change it if you decide it's not your style. You never know, you might find out that biking is your thing!

How Much Physical Activity Is Enough?

We know physical activity has many benefits but how much is enough to get you on your way? US Government experts from the Centers of Disease Control and Prevention now recommend getting 150 minutes of moderately vigorous physical activity each week in addition to doing muscle strengthening exercises at least twice a week.

We recommend 30 minutes per day, five or more days a week. Sound tough to achieve? Well these 30 minutes don't have to be all at one time. If you add up the ten minutes it takes you to power-walk to class, the Frisbee game in the afternoon and the walk to the grocery store, you're already there. Physical activity that is "moderately vigorous" increases your heart rate and breathing and makes you sweat after a while. If you find yourself sweating at least once a day, you're on target. Soon you can increase the minutes of your workout and the intensity.

When you want to work up that sweat, you're going for moderately vigorous activities.

Moderately vigorous activities include:

- - Bicycling at an easy pace
  - Walking (2-4 miles per hour)
  - Horseback riding
  - Most housework and cleaning chores
  - Dancing
  - Tennis doubles
  - Volleyball

When you're training for the Triathlon/Frisbee Golf Competition/just being awesome, you want to go for vigorous activities. Vigorous activities include:

- - Aerobics
  - Ballet, modern or jazz dance
  - Basketball
  - Bicycling at a fast pace
  - Circuit training
  - Football
  - Ice skating
  - Racquetball or handball
  - Roller skating
  - Jogging (10-minute mile)
  - Soccer
  - Swimming at a fast pace
  - Tennis singles
  - Cross-country skiing

Goals and Barriers

Here's a potential goal for your physical activity: 10,000 steps!

Um..ten THOUSAND steps?

Sounds daunting, but do you already know how many steps you take each day? You'd probably be surprised by the number, even if your movement consists of going from the bed to the computer to the refrigerator and back (which we don't recommend).

In response to the sedentary lives many Americans lead, health professionals are recommending the goal of 10,000 steps each day to get people moving.

How far is 10,000 Steps?

For the average adult, it's about 5 miles. We know it may sound like a lot, but you probably get more steps than you think -- the average sedentary person gets about 1,000 to 3,000 steps.

We don't expect you to start power walking nonstop. 10,000 steps is the ultimate goal and just one way of increasing physical activity.

So get counting! Just kidding— you can see how many steps per day you take with the help of a pedometer, like a Fitbit – many smartphones are now even equipped with built-in step-counting capabilities, such as the "Health" app on the iPhone. Try wearing a pedometer when you are walking and see how many steps you get doing daily activities. This number will be your starting point. Record this number in your check-in so you can see how close to 10,000 steps you are getting in your normal daily routine. If you aren't close to 10,000 steps right now, that's okay! Start by increasing your steps by 1,000/day for a week. If you reach that goal, increase your steps by 1,000 each day for the next week. You want to gradually increase the number of steps you take so your body has a chance to acclimate to the physical activity. And if you didn't quite meet your goals, that's not a problem! Just try again.

Pedometers track steps best when walking or running, rather than biking or participating in certain workout classes or however you move. So remember to remove the pedometer when you engage in other physical activities like biking, dancing, and playing basketball. But remember to add these other activities to your check-in!

Barriers to Physical Activity

The goal of this section is to teach you ways to plow through barriers that you may encounter when working on increasing your physical activity. Getting physical activity each and every day is something that many people want to do, but sometimes things get in the way (like life). Things that get in the way of you achieving your goals can be looked at as barriers. Feeling overwhelmed by schoolwork, a lot of out-of-town visitors, or too much weekend partying can all be **barriers** to physical activity. When you encounter a barrier in the road, you have two options. One option is to give up, turn around, and NOT reach your goal (tempting when you're low on sleep).

Other options are to get around, go over, slide under, or plow through the barrier so you can reach your goal. Disclaimer: We do not recommend you plow through your out-of-town visitors to get to the gym; think of it more figuratively!

Sedentary Activity

Sedentary activity is when you use very little energy while sitting down or reclining on the couch - probably while binge-watching Netflix (yes, we've all been there). Other examples of sedentary activity:

- Playing computer/video games
- Texting
- Scrolling through social media or your Instagram feed
- Other activities that do not use much, if any, of your energy

There is no doubt that these activities make up a lot of the typical day and can be fun and relaxing. But, if you spend too much time involved in sedentary habits, it will be harder and harder to work physical activity into your day and meet your physical activity goals.

Think about ways that you can cut down on sedentary activity time and replace it with more physical activity. It's time to stop making fun of those people balancing their iPads on the treadmill and start thinking of ways you can incorporate movement into your own busy life!

Recall that we recommend that you exercise for 30 minutes a day, five days or more a week. We recommended that instead of viewing this 30 minute goal as some daunting task that needs to be done all at once, that you can make this goal more manageable by breaking down the exercise into small chunks throughout the day! You can even incorporate little exercise breaks into your daily routine. For example, if you are on your computer three hours a day, try taking a ten-minute walk each hour to clear your mind and get your body moving. That's thirty minutes of exercise to get your blood pumping, which may even help your brain work better!

Ways to Reduce Sedentary Activity Time

Here are some strategies for turning some of your sedentary time into exercise time:

- Set a time limit for sedentary activities by using a timer or alarm clock. Watch Netflix for one hour instead of three hours and spend the rest of the time hiking or getting coffee with a friend so you can get some face-to-face interaction in real life.
- Check out one of the many apps that lock you out of the internet, or specific time-draining websites like Facebook, for a set period of time.
- Put up signs or reminders to do less sedentary activity, like a putting a post-it on the TV. "Hey Jenny, stand up!" will work just fine.
- Continue some sedentary activities you really enjoy and cut down on sedentary activities you like less. Try Facebooking or reading while on the elliptical or catching up with friends in real life on a walk.
- Set a goal that you will try at least one physical activity per weekend, whether it's hiking on a local trail, playing basketball with friends or even walking to the nearest mall. Start small to bust through your physical activity barriers!

Take a moment to think about your barriers. Then, take one specific barrier to physical activity that you thought of, and create a plan to get around or plow through that barrier.

If you're having a hard time creating a plan, don't worry, we'll discuss how to bust through these barriers in the upcoming sessions.

Choosing a Goal

Last activity for today!

Now it's time to set physical activity goals for yourself. One important thing about setting goals is making sure that you set reasonable goals that you can achieve. Does it make sense to try your goal again? Or should you revise it to make it more reasonable for you to attain.

For instance, if you are someone who never ate breakfast and you said you would eat breakfast every day, then only ate breakfast 2 times last week, perhaps you should just make it your goal to eat breakfast on weekdays before class. Maybe you aren't ready yet to make the change you proposed. If that is the case, think of something else that might be easier to achieve over the next week.

For your activity goals, we recommend following these guidelines:

STEP 1: Without changing anything, keep track of your physical activity for a week to get your starting point or baseline.

STEP 2: Set long-term physical activity goals that you would like to achieve. Examples of long-term activity goals:

- I will hike 10,000 steps twice a week. (Remember to use a pedometer, like a Fitbit or your built-in smartphone application, to make your life easier!)
- I will increase the amount of time I spend exercising (e.g., swimming) each week until I am exercising 30 minutes per day.
- Each week I will add a day until I exercise 5 days each week.
-

STEP 3: Set realistic and specific short-term goals to work on after you get your baseline. Examples of short-term activity goals:

- On Friday, I will make a list of physical activities to try during the following week.
- I will increase my physical activity (e.g., swimming) by 10 minutes per day next week.
- I will exercise at 5PM on Monday, Wednesday & Friday. (It helps to be specific)
- I will ask my friend Molly to go on a hike with me on Saturday.
-

Take a second and write your long-term and short-term goals on a sticky note, your phone, or even on your computer. You'll be able to change your goals throughout the program. Remember, the most important goal this week is to figure out how much physical activity you are getting already. This will help you set realistic, intermediate goals that will help you to achieve your ultimate long-term goals!

1. What are your long-term goals?
2. What are your short-term physical activity goals?

End of Session

Great job completing Session 2 of the StayingFit program! We hope that you enjoyed what you read and are excited to learn more about how you can continue to develop and maintain healthier eating, exercise and sleep practices. Next week we will discuss regular eating and nutrition. When you return in a week for the next session, please click on the Session 3 icon to begin the next session. Have a great week!

Session 3: Regular Eating and Nutritional Guidelines

We hope you have had a good week so far. Take a moment to reflect on your goals from the past session. How did you do? Keep this in mind as you decide what goals to set next.

Before we get started on Session 3, we want to address an issue that you may face throughout the program or have already started to notice.

As you go through the program, you may notice that you're spending more time thinking about your body image, weight, and shape than before you started. This increased preoccupation is normal and expected. Having greater awareness about your body image and eating behaviors is an important first step towards improving your body image and making healthy changes. But keep in mind that **awareness** is different from **obsessiveness**. This means that while it is important to be aware of your attitudes and behaviors, these thoughts should not take up too much of your "mental space" or have an impact on how you feel about yourself.

Here's what we will discuss this session:

- Regular eating
- My eating goals
- Changing your eating habits
- GREEN and RED foods
- Striking a balance: increasing GREEN fruits and vegetables and decreasing RED foods

Regular Eating Habits

Regular Eating

The next important component of being healthy is all about eating, or what you put into your body. What are the two primary ways to practice healthy eating?

1. Eating regular meals
2. Listening to your body's hunger/fullness cues

To set a pattern of healthy eating you need to make sure you are eating regularly, so you don't get overly hungry. Aim to eat 3 regular meals each day and 2-3 snacks. Young adults should consume between 1800 and 2200 calories per day for proper weight maintenance. However, the number of calories consumed may need to be adjusted to meet your body's needs.

Why eat and plan for regular meals? Eating regularly makes people less likely to become overly-hungry and as a result, *overeat*. Eating regular meals helps to manage your hunger and allows you to eat in a more balanced way because it requires planning instead of eating on the run or grazing on whatever is available to you at a given moment in time. Therefore, if you plan to space out your meals and snacks every few hours throughout the day, you will be setting yourself up for success against overeating and won't be overly starved in between!

Here's an easy way of remembering why regular eating is important. Allowing yourself to become overly-hungry can lead to:

- ○ Overeating
  ○ Rapid eating (eating too quickly)

Not getting enough nutrients and calories can lead to:

- ○ Slow metabolism
  ○ Decreased energy and concentration

Here's the takeaway message: if you go 5 or more waking hours without eating, you can end up so hungry that it can be difficult to manage how much or what you eat at your next meal.

Tips for Eating Regular Meals

Plan for no more than 3 or 4 hours between meals or snacks. Eating at regular intervals will keep you from becoming overly-hungry. It is important **not** to skip meals or snacks. If you get off track with your eating, just get right back on track at the next opportunity! Try your best not to cut back or cut out your next meal or snack. To maintain your eating schedule, try not to eat in between meals and snacks (unless you are physically hungry).

Be a flexible eater! Eat a variety of nutritious foods instead of having the exact same thing at every meal every day. This will be more satisfying and easier to maintain for a lifetime. Additionally, allow yourself to occasionally eat "less healthy" food options, like a cookie or cupcake. In general, it doesn't usually work to swear these types of foods off for good, and life would also be a lot less fun if you can't enjoy these sorts of treats from time to time.

Take a moment and think about your eating patterns. How many meals do you eat every day (1, 2, 3, more)? How many snacks do you eat every day? The goal should be to eat 3 meals a day and snacking every few hours.

Changing Eating Habits

One of the main focuses of the StayingFit program is to help you practice **healthy** eating habits. This will mean different things for different people. Some people may need to increase their vegetable consumption or eat more regularly to reach optimum health. This program does not encourage unhealthy eating habits, like forbidding yourself from eating certain foods, skipping meals, or going on restrictive fad diets.

Red and Green Foods

What are RED and GREEN foods?

Identifying some food items as RED and some as GREEN is a simple way to categorize the food we eat into two basic groups.

In the StayingFit program, we have arbitrarily categorized foods as RED if they are **high in calories and/or fat and low in nutrients** or GREEN if they are **high in nutrition and low in fat or calories**.

In general GREEN foods are healthier. They will help you meet your healthy eating goals because they are high in nutrition and low in fat or calories. Eating more GREEN foods, specifically fruits and vegetables, will give your body the nutrients it needs and can make you less likely to crave RED foods.

We hope that these categories will help you think about which nutrients your body is and isn't getting and will help to inform your eating habits for the future!

RED Foods

When you see a RED food, we want you to stop and think before eating. Don't worry too much about the exact calorie content, just think for a second: is this a RED food or a GREEN food?

You can tell whether a food is a RED food if:

- - It is high in calories
  - One serving contains more than 5 grams of fat
  - It has a lot of added sugars, like high-fructose corn syrup or sucralose
  - It is low in nutrients

Examples of common RED foods:

- - Soda
  - Potato chips
  - French fries
  - Cookies
  - Butter
  - Donuts
  - Candy

Never Say Never

Please note: We don't want you to think that you should stop eating RED foods completely or that RED foods are "bad". We just want to make it clear that if you want to adopt a more balanced lifestyle, we recommend minimizing the quantity of RED foods that you eat on a daily basis. In other words, since RED foods have the most calories and the least nutritional value, they should not constitute a large part of your diet. If you eat many RED foods, we suggest you might want to make a goal to eat fewer RED foods, rather then cutting out RED foods entirely. Also, how big of a portion do you eat of a RED food? If you are going to eat a RED food you should try not eat more than one serving at a time. Another goal you might have is to make your portions of RED foods smaller. For example instead of a large order of fries, go for the medium.

Remember that healthy eating involves healthy THINKING. If you think a food is totally bad and off-limits, but you happen to love that food, you've created a serious dilemma for yourself. Sure, there are foods that have little or no nutritional value. But that doesn't mean you can never eat them.

Creating healthy eating patterns means not making any foods off-limits. As you know, the only way to keep up a healthy lifestyle is to make changes that you can live with, which is why extremely restrictive diets, like the grapefruit diet, or swearing off sweets for good never work. As a general rule of thumb, if most of the foods you eat in a day are nutritious, eating junk foods occasionally will not ruin your healthy lifestyle.

GREEN Foods

What are GREEN foods?

- - They give you valuable vitamins, minerals, calcium, fiber, or protein
  - They have less than 2 grams of fat per serving
  - They have no added sugars, like high-fructose corn syrup or sucralose

Examples of common GREEN foods:

- - Fresh fruits
  - Vegetables
  - Low-fat cheese
  - Lean meats
  - Skim milk
  - Whole wheat bread, tortillas or pita
  - Whole beans

GREEN foods promote good health because. . .

- - They are low in calories, and high in vitamins and minerals.
  - High fiber GREEN foods make you feel more full (e.g., whole wheat bread, whole beans, fruits and vegetables).
  - You can increase or maintain the quantity and quality of food you eat

What RED foods do you like to eat, and how often do you eat them? What about GREEN foods? How frequently do you eat healthier foods?

Keep these foods in mind as you move through the program and try to limit your red food intake and increase your green food intake.

How Many Servings of Green Foods Do You Typically Eat Each Day?

Not all GREEN foods are the color green. GREEN foods give you valuable vitamins, minerals, calcium, fiber, or protein. It is important to increase the servings of GREEN fruits and vegetables you eat. We recommend **35** servings per week or about **5** servings each day of GREEN fruits and vegetables.

In addition to our recommendations, my Food Plate is also a good way to structure your nutritional needs. Remember the Food Pyramid from the fourth grade? Well, it's been updated! The five food groups that make up every healthy meal includes:

- - Fruits
  - Vegetables
  - Grains
  - Protein
  - Dairy

It is important to make sure that half of your plate is made up of fruits and vegetables.

MyPlate gives you in-depth information about the benefits of each food group. Below are some tips for healthy eating, which can be found on their website: www.choosemyplate.gov

- - Choose vegetables with lots of color: red, orange and dark green. If you can't always get fresh vegetables, try canned.

- Fruits are a rich source of fiber. Try adding fruits to your meals.
- Make half your grains whole grains, such as brown rice.

Some additional ideas for increasing your healthy eating include:

- - Reducing the additions to your foods that don't add nutritional value (mayonnaise, cheese, dressing).
  - Eating adequate portion sizes (if you are unsure as to what constitutes an "adequate" portion size, you can refer back to the MyPlate picture for a better idea!)
  - Drinking water instead of soda or juice.

Eating Goals

My Eating Goals

Setting goals are important as it gives you something to work towards and it helps keep you on track. Plus it always feels good to achieve them!

Take some time to identify some long-term goals about your eating. Then take some time to jot down some short-term goals that you hope to accomplish in the next week. The short-term goal(s) should be concrete and easy to evaluate whether the goal was achieved and be a realistic change you think you can make.

1. What are your long-term eating goals?
2. What are your short-term eating goals?

End of Session

Great job completing Session 3 of the StayingFit program! We hope that you enjoyed what you read and are excited to learn more about how you can continue to develop and maintain healthier eating, exercise and sleep practices. Next week we will discuss sleep. When you return in a week for the next session, please click on the Session 4 icon to begin the next session. Have a great week!

Session 4: Sleep

Welcome back to StayingFit!

We hope you're enjoying your experience so far. As you go through this session's assignments, try to remember the exercises and tips that have helped you the most. Have fun!

Here's a sneak peek of what you'll read about today:

- - The Importance of Sleep
  - Stages of Sleep
  - Common Barriers to Sleep

The Basics of Sleep

The Importance of Sleep!

For years scientists have been studying sleep and how it relates to quality of life. While scientists don't fully understand the function(s) of sleep, they do know that you need sleep for optimal physical and mental well being. After all, research has demonstrated that good sleep can lead to the following:

- Better mood
- Improved academic performance
- A stronger immune system
- Fresher looking skin (aka beauty sleep!)

Furthermore, researchers understand that sleep is so important that each person is biologically programmed with a "circadian clock," which is essentially the brain's internal temporal monitoring system. This structure is located in the hypothalamus and it works to maintain homeostasis and regulate sleep cycles. The circadian clock stimulates alertness and counteracts the effects of adenosine, which makes you sleepy.

Additionally, during sleep, your cells manufacture more proteins, suggesting sleep is a time when the body repairs itself. During childhood growth occurs primarily during sleep. Adequate sleep is necessary for healthy immune function, which is in part why so many college students end up sick soon after a week of exams and sleep deprivation. Over a long term, not getting enough sleep may contribute to high blood pressure, obesity, and diabetes.

Even though you may understand the benefits of sleep, you have to be willing to apply this knowledge to your actual sleeping habits! Because like everything, good sleep takes practice. You don't have to take cat-naps every hour, but you just need to spend a few minutes each day thinking about your sleep in the right way.

Sleep and your Psychological Health

Just as healthy nutrition and regular exercise habits are important for both your physical and psychological health, the same goes for getting good sleep. Getting an insufficient amount of sleep can impact your psychological well-being, as it can lead to:

- Poor memory
- Poor judgment
- Fatigue
- Increased risk of accidents

As sleep deprivation continues, feelings of sadness and exhaustion increase and bouts of irritability and anger are more frequent. So when you fail your exam after pulling four consecutive all-nighters, you're probably going to feel even worse about it than you would normally, if that's possible.

Sleep and your Academic/Work Performance

Did you know that poor sleep can actually have a negative impact on your performance? A small study published in Behavioral Sleep Medicine found that students who engage in all night study efforts actually end up with a worse GPA. This effect is observed because sleep can affect your concentration, memory and ability to learn new concepts. Though it may seem normal or even necessary to pull an all-nighter right before a huge midterm exam or quarterly report for work, we urge you to think twice. The all-nighter may seem fine at the time, but both your body and performance will take a hit in the long run.

As you may have guessed, many college students do not sleep well. A study found that among a random sample of students at a public university:

- ○ Most students reported later bedtimes and wake-up times on weekends than on weekdays (pretty much what we expected!)
  ○ 33% took longer than 30 minutes to fall asleep
  ○ 43% woke more than once nightly
  ○ More than one third said they were tired during the day

Now think back to your own sleeping habits. Do any of these reports sound familiar?

The Stages of Sleep

Now let's back up for a moment. Before we dive into some tips on how to sleep more effectively, we want to teach you about the basic stages of sleep. Some of the biology of sleep can be pretty interesting, even to non-scientists. Below is a brief description of sleep stages. For a more in-depth introduction, feel free to **read up on sleep cycles** from the National Sleep Foundation.

There are two basic types of sleep:

Non-Rapid Eye Movement Sleep
(NREM)

Rapid Eye Movement Sleep
(REM)
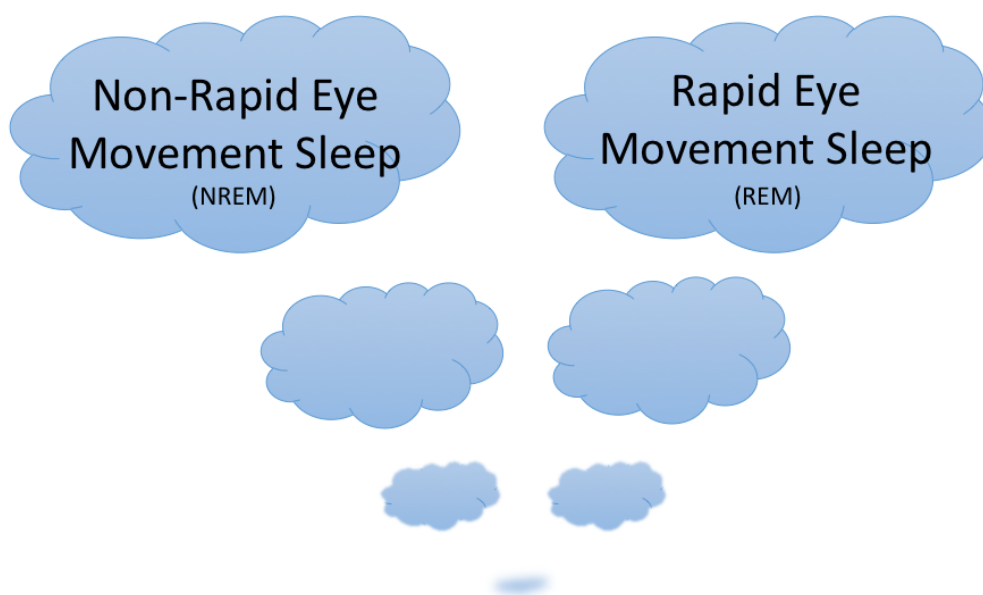
Sleep begins with NREM sleep, progressing through the three basic NREM sleep stages, sleep stages 1 and 2 and slow wave sleep. NREM sleep is then followed by a relatively short REM sleep episode. The time between falling asleep and the end of the REM episode constitutes a sleep cycle.

NREM Sleep

What's a sleep stage? Check out each of the stages below:

Stage 1

Stage 1 of NREM sleep is very light sleep and it occurs during transitions from awake to asleep. Your muscle tone begins to decrease during this stage but slow eye movement continues. Most people don't even notice that they're sleeping at this point.

Stage 2

During this stage of sleep, eye movements stop, and brain waves slow—with intermittent rapid wave bursts called "sleep spindles". Most people when woken-up from stage 2 sleep realize that they were sleeping. If you've ever woken someone up during this stage, you probably noticed that the person slowly opened their eyes, looked around confusedly, and then went back to sleep.

Stages 3 and 4 (slow-wave sleep)

In these stages brain waves slow further to a pattern called "delta waves" mixed with occasional spurts of faster waves. Heart rate and body temperature continue to drop, along with blood pressure and muscle tone. Eye movements remain absent. This is the deepest most restorative stage of sleep. If your alarm clock goes off during slow-wave sleep, you may feel confused and groggy for several minutes after waking up.

REM Sleep

This is when you do most of your dreaming, and is a time when your brain is actively encoding lessons that you learned and memories that you made throughout the day. Some people have called this type of sleep "paradoxical sleep" because it involves relatively fast brain activity and irregular heart rate and blood pressure, as well as characteristic rapid eye movements. During

REM sleep your limbs are temporarily paralyzed, perhaps to keep your body from acting out action packed dreams.

Your sleep progresses through these cycles of NREM and REM sleep about every 90 minutes. Your brain engages in most slow wave sleep earlier in the night, which will ensure you get enough of this most restorative sleep state even if you cut your night short by an early morning meeting. If this happens to be the case, just remember that you can always catch up on sleep with a short nap during the day!

Barriers to Sleep

Common Barriers to Sleep

Even though getting good sleep may seem like common sense, it turns out to be the first expendable commodity for college students who are bogged down with school, a social life, a professional life, clubs and activites, and more. The rationale seems to be that if there's just so much to get done in a day, why focus on getting more sleep? In this section, we are going to discuss common barriers to sleep.

Anyone up for a night-cap?

For those who drink, it turns out that having a late drink or two probably does more damage than good to sleep quality.

While alcohol might help you initially fall asleep easily, it is also likely to cause fitful sleeping in the middle of the night and can decrease deeply restorative slow wave sleep (ie, Stages 3 and 4 of NREM sleep). Many people report waking up super-early after a night of drinking, which can wreak havoc on your circadian clock, not to mention your memory, mood and behavior. For optimal sleep, we suggest cutting back on the alcohol before bedtime.

Late night snacking

Ever stayed up with some serious indigestion after eating a midnight snack? Even without considering how terribly uncomfortable it is, it's also important to note that indigestion can completely interrupt your sleep. Eating too close to bedtime can increase the risk of indigestion. However, skipping dinner can also be a problem, since feeling too hungry may increase alertness. And the cycle just continues. Studies have shown that people who don't get enough sleep are more likely to have bigger appetites due to a decrease in leptin (ie, the appetite-regulating hormone)! To break this cycle, we suggest that you try and plan to have your last meal or snack about two hours before you go to bed!

Transitioning into Mondays

Let's talk about something that everyone hates: Mondays. As you know, Monday is universally dreaded, but not only because it signals the start of a work week. It turns out that your body may be trained to hate Mondays because of your sleeping habits.

Many college students get out of sync with their weekday internal circadian clock by sleeping in late on weekends. Unfortunately this mismatch can cause ripple effects that tend to last throughout the week. For example, on Monday, you may feel extremely fatigued in the morning as you try to concentrate during your 8 AM ecology lecture, but still have to stay up later that evening to finish the homework for your Tuesday class. Then on Tuesday morning, your brain may continue to feel foggy and unfocused as your circadian clock tries to re-adjust to your weekday schedule. And the pattern keeps repeating itself. Sound familiar? If your weekend and weekday sleep schedules are extremely different, your performance could suffer all week.

The simple mismatch between your weekend biologic rhythm demanding sleep and your weekday school schedule demanding attention to class or work can leave you miserable. This is also the reason for "jet lag" after an overseas flight. In essence, many students and individuals who need to wake up early during the weekdays, but find themselves sleeping in on the weekends, feel "jet lagged" every Monday.

What are your usual wake times on the weekends compared to your typical Monday morning?

Some students may easily recognize something is wrong with their sleep clock, however, most students will have less pronounced weekday/weekend schedule mismatch and won't know whether it is affecting their mood or performance. More subtle symptoms of circadian clock mismatch for all individuals can include:

- Decreased creativity
- Decreased memory
- Increased irritability
- Decreased performance

If you find yourself experiencing any of these "side effects" of poor sleep on a regular basis, we encourage you aim to have the same basic sleep schedule for weekdays and weekends, particularly the same rise time. Doing this can really help to reduce symptoms of circadian clock vs. weekday schedule mismatch. You might not guess that waking up at 8:00 AM on Saturdays would decrease your irritability, but you might be surprised!

Of course, if you get up earlier on weekends, you'll have to get to bed earlier in order to get enough sleep. Going to bed earlier on weekends during college may seem completely impossible, but notice we didn't say "early" but "earlier". If you now fall asleep at 4:00 AM on Friday nights, crashing at 1:00 AM instead might still allow you to enjoy nightlife and at the same time lead to some serious results.

The same is true for waking up in the morning. If you currently get up for classes or work every weekday at 8:00 AM but sleep in until noon on weekends, setting a goal to get up at 10:00 AM on weekends is likely to improve your performance in and out of class. Find a compromise! We recommend getting up at approximately the same time every day on weekdays and getting up no more than one hour later on weekends. Once you get used to living in sync with your circadian clock you will probably notice improvements in your sleep and your overall sense of well being!

Daytime Hurry and Nighttime Worry

It can take between 9 and 21 hours for your liver to metabolize most of the caffeine in your system. More specifically, caffeine is absorbed by the stomach and small intestine within 45 minutes of digestion, distributed throughout the body tissues, and then metabolized by the liver. However, it takes quite a long time to excrete the caffeine, and thus, this process can take up to 21 hours! As a result, you may still be feeling that morning espresso while you're watching

Homeland before bed. Therefore, if you drink caffeinated beverages, we recommend that you avoid them after lunch time in order to give your liver a fighting chance at eliminating enough of the drug to allow your brain to sleep at bedtime.

*Note: For ladies on birth control, the effects of caffeine may stick around even longer. This is because birth control pills can reduce the speed at which your liver is able to eliminate some drugs, including caffeine!

Rest-Less

Are you one of those people who likes to exercise at night? If so, listen up! We love exercise, in fact some studies suggest that working out may even help improve your sleep...just not working out right before bedtime. Before you sleep, your body needs to decrease your internal temperature. If you are exercising right before bedtime, you may be interfering with this process. Your body temperature drops slightly a few hours after exercise; so the best time to exercise is probably about 3 to 6 hours before bedtime. This allows plenty of time for chilling, both literally and figuratively.

Tips for Better Sleep

Tips for Waking up in the Morning

Do you have a hard time getting out of bed in the morning? If so, we recommend the following tips to help you start your day off right:

1. **Wake up to something fun!** Having something you enjoy scheduled as your first morning activity will help you keep a constant wake time, because you will be looking forward to getting out of bed. This is particularly important on weekends, when you might not otherwise have much incentive for getting out of bed. You could exercise with a friend, plan an early morning trip to the beach, paint, do some yoga, read a good book in the morning sun, cook a nice, healthy breakfast...the possibilities are endless!
2. **Exposure to light**. Exposure to light first thing in the morning is a good idea, especially if you are not really a morning person. Early AM exposure to bright light can suppress sleep-inducing melatonin levels and provides a cost-free alternative to fake tanning (but avoid mid-day sun exposure because skin cancer isn't fun and you derive no circadian clock benefit). If you prefer to avoid sun-exposure as much as possible, simply sitting in the shade looking out at brightly sun-lit areas is enough to reduce brain levels of melatonin and help reset your circadian clock for earlier wake-up times!
3. **Naps**. If you have to wake up earlier than you would like, reward yourself with a well-deserved nap later on in the day. After all, there's nothing better than a short, mid-afternoon nap on a Sunday. However, napping for longer than one hour or napping late in the evening can disrupt your circadian clock timing. If you like to nap, try to do it for an hour or less and get it in the afternoon before 5:00 PM.

Tips for Going to Bed

Chill-Out Before Bedtime. Taking some time to unwind before bedtime can definitely help improve the quality of your sleep. Things to avoid during this time include anything that amps you up, even hardcore studying. For example, avoid the following:

- Working out right before bedtime
  - Checking your work email
  - Watching scary movies
  - Fighting with a friend or partner
  - Late night excursions
  - Late night snacking
  - Scrolling mindlessly through social media

Instead, try chilling with friends (but avoid discussing politics, sports, or anything else that gets your mind going faster), having a nice discussion with your partner about his/her day, reading a good book, listening to relaxing music, writing in your journal and more. Basically anything that keeps you in a relaxed mood and doesn't take up too much mental or physical energy is a great option!

Make Bedtime More Appealing!

In order to make bedtime feel more appealing, you need to make your mind associate your bed with sleeping. Just like Pavlov used classical conditioning to teach his dogs to associate the ringing of a bell with eating, you need to teach yourself to similarly associate the bed with sleeping!

Beds are for primarily sleeping, however, we all know how multifunctional beds are! For some, beds are where people like to whip out their laptops and do work, lounge and call up a friend, eat dinner and watch Netflix, or check in on Facebook. While it's perfectly understandable to want to use your comfy bed, it's also important to note that spending a lot of time reclining can actually hurt your sleep.

When people are having trouble sleeping, it can be because being in bed just doesn't signal sleep to them anymore. Insomniacs who spend time reading or writing in bed start to associate their sleeping place with their books and have trouble getting to relax when they actually need to sleep.

If you find yourself having trouble sleeping, check out these tips:

- Limit laptop use to your desk or outside your room.
  - Keep the iPads out of the sheets and watch TV from your chair rather than your pillow
  - Dim the brightness of your laptop so that your eyes become adjusted to less light, which signals sleep!
  - Try covering your bed with a cool bed cover during the day so that when you take it off at night, the "sleeping only" bed you find underneath looks different and puts you into sleep mode
  - Study in a common area or work in a different room.
  - If you're looking for comfort, opt for the couch rather than your bed!

You know yourself the best and therefore, you know what distracts you the most. We challenge you to get rid of any distractions that might interrupt your sleep! Pro-tip: If you're getting out of bed in the morning at a consistent time and giving yourself a chance to unwind before bedtime, but still find yourself feeling tired throughout the day, don't go to bed at night until you're tired.

For our light sleepers, try using a white noise maker. If you are a light sleeper and easily susceptible to outside noise (ie, your partner snores or your roommate is watching tv), actual "white noise makers" can be conveniently purchased at most drugstores or even ordered on Amazon. Alternatively, a fan can serve the same purpose—producing white noise that can help you sleep through roommates snoring or neighbors talking. If these options don't work out for you, headphones and ear plugs tend to help as well!

Sleep and Emotions

Sleep and Emotions

Emotions can have an acute effect on sleep. Read on to learn how to calm your mind so you can get better sleep, which will likely help you feel better about that problem that's on your mind!

Anxiety

During weeks where you know that you have a stressful assignment due for class or an intense presentation that you've been preparing for at work, it's natural to feel on edge. Unfortunately, sometimes this anxiety can affect you to the point where you start to lose sleep. You probably remember our earlier discussion about the circadian clock which will take care of sleep for you in most circumstances. However, worrying about getting to sleep can actually freak you out enough to get in the way of the body's own internal sleep drive, which under normal circumstances, allows you to fall asleep at the appropriate time. If you want to learn how to calm your nerves before you fall asleep, keep reading!

Worry-Busting Strategies

Although you want to be in tip-top shape for your marathon the next morning, realize that sleep on any one night isn't all that important: as long as you're allowing body enough time to relax. You will fall asleep whenever your sleep drive pushes you over the edge to dreamland. Your body is not trying to sabotage your success. Sometimes you may sleep less because you are stressed. Stressing about not sleeping is bound to make things worse. As long as you sleep well on most nights you will be fine. Research has demonstrated that people with insomnia who only sleep a few hours during the night do not have the memory and concentration difficulties suffered by people who are forcibly deprived of sleep (like night-shift workers). Your body will adapt to less sleep on a few nights.

If you tend to stress during the evening or late at night, try doing these two things:

1.
   1. **Make a list of things that you have to do the next day.** This may sound unrelated, but lots of people sit up in bed thinking about the next day's activities. They're so worried about remembering what they have to do that they lose sleep, which ironically hurts their memory. At night if you are in bed and begin to worry about remembering things you have to do the next day, draw up a quick list.
   2. **Schedule a worry time!** If you tend to worry a lot about things that you can't control, then take control. When you find yourself worrying at night, pick a time during the next

day to think about what you have on your mind, then change your mental channel to something more soothing.

Sleep Diary

Goal Setting and Your Sleep Diary

You're almost done with Session 4! The last thing that we want to do is introduce you to a magnificent tool called the sleep diary. This diary will allow you to track your sleeping patterns on a daily basis. We know this sounds tedious and time-consuming, however, we encourage you to think of this diary more as a general guide for your sleep goals. For example, if you find that you're getting 8 hours of sleep a night, but this sleep is restless, try brainstorming different ways to make your sleep more effective. A possible solution could be to create a better wind-down schedule before you go to sleep, to minimize distractions, etc. Feel free to review the diary in our Refresh program and jot down any important items that you want to track. If you ever want to return to the diary, you can always revisit Session 4 or print out a copy of the diary for your own records!

Weekly Goals

My Weekly Goals

Last week, you set physical activity and eating goals. Now (if you haven't already) make sure you take some time to evaluate whether or not you reached them! This week we covered a lot of information and provided some tips for healthy sleep habits, and you'll be setting a weekly sleep goal now. There are many goals that can be set to address situations that lead to poor sleep habits, such as waking up this weekend within 2 hours of your normal weekday wake time. Consider adding one/some of these to your goals this week!

Although we did not cover physical activity or healthy eating habits this week, it is still important to make sure you work to address those goals as well!

1. What is your physical activity goal for this week?
2. What is your eating goal for this week?
3. What is your sleep goal for this week?

End of Session

Great job completing Session 4 of the StayingFit program! We hope that you enjoyed what you read and are excited to learn more about how you can continue to develop and maintain healthier eating, exercise and sleep practices. Next week we will discuss lifestyle changes and eating with friends. When you return in a week for the next session, please click on the Session 5 icon to begin the next session. Have a great week!

Citations for this week's content:

1. Thatcher, PV. University students and the "all-nighter": correlates and patterns of students' engagement in a single night of total sleep deprivation. Behavioral Sleep Medicine. 2008. 6:16-31.
2. Forquer LM, Camden AE, Gabriau KM, and Johnson CM. Sleep patterns of college students at a public university. Journal of American College Health. 2008. 56(5): 563-5.
3. Trockel MT., Barnes MD., Egget DL. Health-related variables and academic performance among first-year college students: implications for sleep and other behaviors. Journal of American College Health. 2000. 49(3): 125-31.