



AHW Lesson 2 (Weeks 3&4)

Breakfast and Sleep

Whether a child running to catch the bus, a parent of three, a single business executive, or a retired couple enjoying life after work, breakfast is often overlooked in the daily routine. Millions of Americans regularly skip breakfast. While commonly touted as the “most important meal of the day,” breakfast is rarely given the time and attention it deserves.

Most of the hype around eating breakfast has been about the benefits of eating it versus not eating it, including increased energy; better attention, concentration, and memory; improved insulin sensitivity; and lower BMI. Yet, just as important as eating breakfast at all, is the quality of what you are choosing to eat for breakfast. When consuming carbohydrates, select whole grains for the added fiber, and pair it with a protein to enhance the benefits of breakfast. Fiber helps to slow the absorption of glucose from the gut into the bloodstream, slowing the rise of blood sugar. Additionally, fiber takes longer to break down in the gut, helping us feel full longer. Protein increases the uptake of glucose from the bloodstream into our cells, which also assists in controlling blood sugar levels. On top of that, consuming protein at breakfast has been shown to increase metabolism, decrease food cravings throughout the day, and promote weight loss.

With your current focus on health and fitness, it’s a perfect time to get your breakfast routine started or fine-tuned. Make time for breakfast. Start your day with breakfast and reap the benefits today and days ahead. Consider these solutions below to help fit this meal into your routine.

Breakfast Ideas:

- Whole wheat or corn tortilla wrapped with scrambled egg, shredded cheese, and diced tomato or salsa – for a breakfast burrito
- Egg, cheese and spinach omelet sandwiched between an English muffin
- Whole-wheat toast smeared with avocado and topped with an egg
- English muffin with peanut butter topped with sliced banana
- Toaster waffle with almond butter and apple slices
- Oatmeal topped with a splash of milk, raisins, and chopped walnuts
- Granola and milk topped with sliced peaches and slivered almonds
- Bowl of cottage cheese and a whole grain & fruit muffin on the side
- Yogurt layered with granola, seeds and sliced strawberries
- Cheese stick and a fruit/nut bar, or cereal bar
- Smoothie with choice of fruit, greens, Greek yogurt, and a splash of orange juice
- Smoothie with banana, peanut butter, almond milk, and a dash of cinnamon and 1 tablespoon of ground flax seed

Breakfast Tips:

- ✓ **Make time.** Plan time to prepare and eat breakfast, just like you brushing your teeth in the morning. Wake up 15 minutes early, if needed. If eating on the run is necessary, prepare foods the night before. Avoid highly processed, high sugar, and high salt items. For example, grab a cheese stick and an apple.
- ✓ **Plan ahead.** The night before, prep your coffee pot. Set out the toaster. Pre-cut strawberries. Oatmeal takes 2 minutes in the microwave or 5 minutes on the stove. Portion out into single servings, and top with your choice of nuts and fruit.



- ✓ **Chose variety.** Avoid getting into a rut of eating the same thing every day. Not only can this lead to boredom and lack of enthusiasm for breakfast, but it can also limit your nutrient intake. More variety equals more nutrients!
- ✓ **Be creative.** Soup for breakfast? Super! Leftover spaghetti for the morning? Why not! Don't let common practice dictate what you eat for your morning meal. Anything can be breakfast. Make this meal an opportunity to add more veggies into your day.

Importance of Sleep can't be over stated!

Chronic stress can lead to burnout, anger, depression and medical problems. Our bodies and minds need to be allowed to deeply relax and experience a decrease in heart rate, respiration rate, blood pressure, muscle tension, and oxygen consumption. Sleep gives our bodies the opportunity to accomplish all of these things. An adequate amount of sleep for adults is an average of 7-9 hours per night; and adequate sleep has been linked to the following positive impacts:

- Learning and memory – sleep helps the brain commit new information to memory.
- Metabolism and weight – Chronic sleep deprivation may cause weight gain by affecting the way our bodies store carbohydrates and altering hormones that affect our appetite. Do you ever crave junk food when you are tired?
- Safety – not enough sleep contributes to a greater tendency to fall asleep and can cause mistakes such as falls, traffic accidents or medical errors.
- Mood – sleep loss may result in irritability, impatience, inability to concentrate and moodiness.
- Cardiovascular health - Serious sleep disorders have been linked to hypertension, irregular heartbeat, and increased stress hormone levels.
- Disease – sleep deprivation has been shown to alter immune function.

Chronic sleep loss may impact body composition. Recent studies have found people who routinely don't get enough sleep are more likely to be overweight than people who get adequate sleep. Additionally, two recent cohort studies of middle-aged and older adults have found insufficient sleep to be associated with lower muscle mass. A new study published in *Science Advances* delved into the reasons why.

Researchers sampled blood, skeletal muscle, and fat tissue from 15 healthy young white men after allowing them to sleep for up to 8.5 hours, and again after making them stay up all night. They found that sleep loss was associated with decreased metabolic activity in muscle tissue and increased activity in fat tissue, meaning there was less muscle building and more fat building going on in the sleep-deprived men. It has been suggested that acute sleep loss might cause hormonal disruptions, which then lead to metabolic changes in fat and muscle tissues. This study did find several hormonal changes in the sleep-deprived men, including increased levels of the hormone cortisol, which is involved in the breakdown of muscle tissue.

The researchers also observed changes to the DNA coating (methylation) in the sleep-deprived subjects similar to patterns seen in the fat cells of obese individuals and people with type 2 diabetes. This suggests that chronic disruption of sleep may actually change gene expression to favor creation of new fat tissue. So, according to the researchers, acute sleep loss may alter metabolism and actually change gene activation to favor both the breakdown of muscle and the building of new fat tissue.

Not getting enough sleep is associated with obesity, metabolic syndrome, and type 2 diabetes. Getting the recommended 7 to 9 hours a night might be an important key to good health. (Source: Tufts University, *Health & Nutrition Letter*, November 2018)

Keep working hard on making wise food choices and exercising! Think about how you can improve your breakfast habits, take action to get more or better sleep. Try it out. It works!



To learn more:

<https://www.nhlbi.nih.gov/health-topics/sleep-deprivation-and-deficiency> - National Heart, Lung and Blood Institute, Sleep Deprivation and Deficiency

https://www.health.harvard.edu/press_releases/importance_of_sleep_and_health - Harvard Medical School – Importance of Sleep

<http://health.colostate.edu/resources/sleep/> CSU Health Network, Sleep

<https://www.rush.edu/health-wellness/discover-health/why-you-should-eat-breakfast> - Rush University Medical Center – The Science Behind Breakfast

<https://www.sciencedirect.com/science/article/pii/S1878450X17300045> -- Science Direct, Breakfast: The most important meal of the day?



AHW Lesson 2 Activities

Breakfast and Sleep

“Applying the Lesson”

Choose one of the following activities to apply what you learned about your health and your healthy goal setting. Write a short paragraph (3 to 5 sentences) to describe what you did and learned from the activity selected. Report your Applying the Lesson results by Online form, email, fax or hard copy to your county Extension Office.

1. Breakfast – Needing to improve on your breakfast habits? Check out one or more of the additional resources. Then make a SMART goal and a plan as to how you’re going to do better and why!!

2. Sleep – Check out one or more of the additional resources on Sleep. Let us know what you learned about your sleep habits. What actions can you take to improve your sleep?