# Sleep, Exercise & Nutrition



Myths	Facts
Sleep and nutrition are not correlated.	Not getting enough sleep over time can increase the risk of developing metabolic disorders like type II diabetes. In addition, studies have shown that people who do not meet the recommended amount of sleep tend to consume more food and snacks more often. Processed carbohydrates and high-fat foods have been found to be chosen more often when sleep-deprived.
How many hours I sleep per night will not affect me in the long term.	Not enough sleep or poor quality of sleep has been linked to a variety of diseases such as depression, diabetes, obesity and cardiovascular disease.
6 hours of sleep per night is enough.	Adults, including college students, need 7-9 hours of sleep per night. Less than the recommended amount can affect an individual's reaction time, attention, and memory. This can also affect athletic and academic performances.
Alcohol can be a helpful sleep aid.	Alcohol may help you relax and fall asleep in the short term, but it keeps you from getting into deeper stages of sleep and can disrupt sleep throughout the course of the night. In the end, you may spend an adequate amount of time in bed, but still wake up feeling tired.

## **Sleep Deprivation, Athletic Performance & Nutrition**

We have all heard about the importance of sleep, but yet, how often is it the first thing you sacrifice in order to complete all of your tasks?



Even small amounts of sleep restriction can have big consequences such as alterations in carbohydrate metabolism, increased inflammation (increased risk for injury; impaired athletic performance; slowed recovery post exercise), decreased immune and antioxidant systems (you get sick more easily and more often), impairment in attention, memory and cognitive function (poor focus come game time and in the classroom), and heightens emotional reactivity. Sleep also alters hormone

regulation in two main ways: it increases cortisol levels (the stress hormone) and decreases leptin levels (the appetite hormone). Together, these hormones impact your appetite, what you eat, the quality of foods you choose, how much you eat and your digestive health.

To shift perception, the real work begins after you step off the field, track or court. What an athlete does immediately after and between training is imperative to how quickly their bodies rebuild muscle, replenish nutrients and perform. Hard efforts in training, practices, and games breaks down muscle, depletes energy and hydration status. Refueling through proper hydration and nutrition are only a part of optimal training and recovery. Sleep is the other missing puzzle piece.

The National Sleep Foundation (NSF) recommends that adults 18 years and older require 7-9 hours of sleep per night, although the average sleep duration in U.S. adults is 6.5 hours. Check out some tips listed below that can help you drift off into a restful sleep.

# Nutrition for a Restful Sleep

### COMPLEX CARBOHYDRATES

Carbohydrates help provide us with energy for the next morning. Combining foods high in protein with a healthy, complex carbohydrate helps to improve sleep. Complex carbohydrates include brown rice, oats, whole wheat bread, whole wheat pasta, and potatoes.

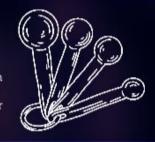


#### **LEAN PROTEINS**

Proteins in the foods we eat are the building blocks of an amino acid known as tryptophan. The body uses tryptophan to produce the hormone serotonin, which causes you to feel relaxed and sleepy. Lean proteins include beans, peas, lentils, light meat poultry, white fleshed fish, and plain greek yogurt.

#### **HEALTHY FATS**

Healthy fats found in nuts/nut butters such as walnuts, cashews, and almonds can also help boost serotonin levels. Add them to stir frys, salads, or as toppings.



#### **HERBS**



Herbs, such as basil and sage, ease tension and help improve sleep. Sprinkle basil on pasta dishes, buy/make a pesto, or on top of some mozzarella with tomato. Sage pairs best with savory things like roasted potatoes, butternut squash soups, beans/bean salads, pork or beef. Teas, such as chamomille and lavender, may aid in a restful sleep.

#### MEAL AND SNACK IDEAS TO HELP IMPROVE SLEEP



#### Meal Ideas:

- Grain bowl + turkey/chicken + veggies
- Chicken salad sandwich + whole grain bread
- Blackbean and cheddar quesadilla (on a whole grain tortilla)
- · Whole-wheat mac N cheese
- · Whole-wheat pasta + chicken

#### Snack Ideas:

- Whole-wheat cracker + cheese + small side fruit
- Almond butter + whole grain toast + ½ banana
- Walnuts + pancakes + fruit
- Whole-grain waffles + nut butter Greek yogurt + nuts/seeds + fruit

# TIPS FOR A RESTFUL SLEEP

#### STICK TO A SLEEP SCHEDULE

Wake up at the same time each morning, and go to sleep at the same time each night

#### CREATE A RELAXING BEDTIME RITUAL

Make a night-time tea or beverage, take a shower or bath, listen to calming music, stretch/yoga/foam roll, practice self-massage, try aroma therapy, reading, journaling, or try doing 10 minutes of meditation and breathwork to help you release the day and get ready for sleep.

#### NAP BEFORE 5PM, OR NOT AT ALL

Some people find it helpful to take a daily 15-30 minute power-nap. Avoid taking naps too late in the day and if you are still finding it difficult to fall asleep, avoid taking a nap.

#### AVOID ALCOHOL, CAFFEINE, AND CIGARETTES IN THE EVENING

Nicotine, caffeine, and alcohol can disrupt sleep.

## CREATE A STUDY

As a college student and athlete, you may feel like you always have to study. While you do have academic responsibilities, that doesn't mean you can't find a healthy balance between sleep and studying. Breakup your studying or to-do list throughout the day and create a designated study zone that is free from distractions.

#### LIMIT SCREEN TIME 1-2 HOURS BEFORE BED

This includes computers, tvs, phones and tablets. The particular light from these devices activates the brain and is hard on your eyes.

#### EAT A LIGHTER DINNER AT NIGHT

Eating big or spicy meals can cause indigestion and discomfort before bed can make it difficult to fall asleep. If you can, eat large meals 2-3 hours before bedtime and consume a light snack 45 minutes before bed if you're still hungry.

#### DIM THE LIGHTS, SET THE MOOD

Avoid bright and intense lights in the evening and at least 60 minutes before bed. Turn on less lights, light candles, or use a salt lamp to get your brain and body to mentally and physically prepare to wind down

### **Recipe for Sleep**

This delicious and easy recipe is budget-friendly and contains *tryptophan*- that fancy amino acid that our bodies use to make *serotonin* so we can feel relaxed and get sleepy. Consume this dinner at least 2-3 hours before bed time to prevent going to bed on an empty stomach. If you are still feeling hungry, check out the list of light bedtime snack ideas to consume at least one hour before bed. Serve with your choice of whole-grain (brown rice, garlic bread, etc), green beans with sliced almonds (tryptophan source), and a roasted veggie or salad of your choice. Eat up and sleep well.

#### **Baked Lemon Basil Chicken Breast**

Marinate: 1-2 hours
Prep time: 15 minutes
Cook time: 12 minutes

Servings: 4

#### Ingredients:

- 2 skinless chicken breasts halves
- 1 ½ tablespoons fresh basil, chopped (or 1-2 tablespoons dried)
- 1 lemon, juiced
- 1 tablespoon olive or canola oil
- 2 cloves garlic, minced (or pre-minced)
- Salt and pepper, to taste
- Garnish: fresh basil and lemon
- Optional additions: fresh tomatoes, mozzarella, etc.

#### **Directions:**

- Place chicken breasts in a large food storage bag or container. Add and combine chopped basil, lemon juice, olive oil, and chopped garlic. Refrigerate for 1-2 hours to marinate.
- 2. When ready, preheat the oven to 400 degrees Farhenheit.
- 3. Use a baking sheet and place foil on it. Spray foil with non-stick spray and place chicken breast on sheet.
- 4. Bake for 15-20 minutes. To check if it is done, cut into the thickest piece of the chicken to check that it is no longer pink inside. Note that the internal temperature for chicken is 165 degrees Fahrenheit. You can also use an <u>internal thermometer</u> to check that the chicken has been cooked to a safe temperature.
- 5. Remove from the oven when finished and plate. Garnish with fresh basil, lemon, salt, pepper and any other optional additional toppings. Serve with your choice of whole-grain (like brown rice, garlic bread, etc.), green beans with sliced almonds, and a roasted veggie or salad of your choice.

This recipe was adapted from: <a href="https://www.thespruceeats.com/lemon-basil-chicken-3052855">https://www.thespruceeats.com/lemon-basil-chicken-3052855</a>