

# MOOD-BOOSTING FOODS & EXERCISING IN COOLER WEATHER

**First Fridays Wellness Cafe  
With Lauren & Maria**

# SEROTONIN

Serotonin has a wide variety of functions in the human body. People sometimes call it the happy chemical, because it contributes to well-being and happiness.

Serotonin is a chemical in the brain that can affect mood. Eating foods that contain the essential amino acid known as tryptophan can help the body to produce more serotonin.

# TRYPTOPHAN

**Tryptophan** is an amino acid that can be converted into **serotonin**.

Tryptophan and the molecules it produces influence many functions in the body, including **sleep, mood and behavior**. It must be consumed in the diet as your body cannot produce tryptophan on its own.

# STUDIES: SEROTONIN AND MOOD

1. "These studies have allowed us to establish the role of serotonin in higher order brain function in both preclinical and clinical situations and have precipitated the finding **that low brain serotonin levels are associated with poor memory and depressed mood**. Tryptophan is an essential amino acid found in many protein-based foods and dietary proteins [1] including meats, dairy, fruits, and seeds. High-glycaemic index and -glycaemic load meals also increase the availability of tryptophan [2]."
2. "**Food and nutrients directly influence nerve cell function, mood and behavior**. Activity of some neurotransmitters is enhanced or limited by diet."
3. "Fresh fruit and vegetables are rich in nutrients, including antioxidants. It is reported that **fruits or vegetables may modify brain serotonergic status and have a positive effect on mood**, as with other carbohydrate-rich foods [83]."
4. "In this study, possible evidence was found that **fruit or vegetable** intake, respectively, is associated with decreased risk of depression [87]."
5. Studies show the link between the nutrients and antioxidants in fruits and vegetables and beneficial properties toward preventing depression.

**Research has shown that low levels of tryptophan may contribute to mood disorders, including depression and anxiety.**

# FOOD & MOOD

## High Tryptophan Foods

- Eggs
  - Meat
  - Yogurt
  - Milk
  - Bananas
  - Nuts/Seeds
  - Oats
  - Cheese
- General regulation
  - Improved mood
  - Increased pain tolerance
  - Better sleep
  - Regulates body temperature
  - Decreases aggression & cravings

## HOW MUCH?

- 2 eggs
- 5+ servings of F/V
- 8 oz milk
- 2 servings salmon/week
- Handful of nuts/seeds

**Pair protein-rich source with complex carbs to increase availability of tryptophan.**

## WHAT ELSE CAN YOU DO?

- Sunlight
- Exercise!

# BREAKFAST IDEAS

- Scrambled eggs (or tofu) with veggies & whole grain toast
- Oatmeal with milk, berries, bananas & chia seeds
- Yogurt with blueberries & banana
- Whole grain bagel with cream cheese, spinach & lox
- Smoothie with oats, milk, spinach & berries



# BENEFITS OF WARM UP

- **Increased heart & breathing rate**
  - Increase body's capacity to work
  - Increase blood flow to active tissue
  - Increase oxygen supply
  
- **Increased tissue temp: faster, stronger, longer muscles (cold rubber bands snap)**
  - Increase rate of muscle contraction
  - Increase efficiency of opposing muscle contraction & relaxation
  - Increase metabolic rate - energy
  - Increase soft tissue extensibility (muscle tissue flexibility)
  
- **Increased mental prep for exercise**
  - Increased mental readiness of exerciser

# RISK OF NOT WARMING UP

- Increased risk of injury (think back to cold rubber band)
- Placing extra stress on heart & lungs if jumping into workout without a warm up phase first
- Decreases your performance during the workout (meta analysis study warm up was shown to improve performance in 79% of the criterions examined for athletic performance).

# KINDS OF STRETCHES - DYNAMIC VS STATIC

- **Dynamic warm ups and stretch** involves movement and is functionally orientated, often use movement patterns similar to the exercise or activity you are about to perform, helps improve mobility while moving through full range of motion, protects joints during activity
  - Examples: hip swings, reverse lunge with twist, walking knee hugs, shuffle, hip circles
- **Static stretch as part of cool down** - holding a position helps increase flexibility, exhale into the stretch and inhale as you come out of it, static stretching helps prevent DOMS because it can help put muscles back at pre-exercise length
  - Examples: standing calf stretch, forward fold, balanced quad stretch, eagle arms