

IEHA Online Lesson

Jump-Start Your Immune System

Would you like to feel better and improve your overall health? Your immune system helps your body fight off disease and you can make it stronger. Avoid wasting your money on the latest food fads and misleading supplements by learning some proven ways to boost your immune system and feel better. Two HHS Educators share a summary of their review of reliable information and a resource list.

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Lesson Title: Jumpstart Your Immune System

Lesson Description and Objective: In this lesson you'll learn about the role of your immune system and how to take care of it. This lesson will help you get started on taking steps to boost your immune system through food, exercise, sleep, and good hygiene practices.

Introduction: What is your immune system and why is it important?

Your immune system is your body's defense mechanism that functions to protect you against infections. Your immune system is a network of cells and proteins that defend your body against bacteria, pathogens and microbes. We are all born with an immune system, but over time, our immune system can become weakened, leaving us susceptible to microbes that we have difficulty or are unable to fight. A weakened immune system can occur for many reasons including:

- Allergic diseases like asthma, hay fever, eczema etc.
- Autoimmune diseases like MS, Type 1 Diabetes, and Lupus etc.
- Genetics
- Certain medical treatments like chemotherapy
- Other diseases like HIV
- Getting older (birthdays!)



How do you know if your immune system isn't functioning well? There are several signs that may indicate you have a weakened immune system:

- Tired all the time and lethargic.
- High stress levels.
- Always suffering from a cold
- Wounds are slow to heal
- Frequent infections (e.g. candida)
- Digestive issues
- Craving sugar – weakens white blood cells (germ killing) response



What can I do to boost my immune system?



We can help support our immune systems by:

- Eating healthy nutritious food
- Exercising regularly
- Practicing good personal hygiene such as washing hand and bathing
- Adopting a healthy sleep pattern
- Getting regular health checkups with a qualified health professional

<https://health.usnews.com/wellness/slideshows/ways-to-boost-your-immune-system?slide=13#expert-sources>

“Take care of yourself - and your immune system will take care of you”

To recap, here are 11 things you can do to boost your immune system:

- Live well.
- Call on good bacteria.
- Imbibe responsibly.
- Get your shots.
- Fit in your recommended activity.
- Stop lighting up.
- Go to bed already.
- Stress less.
- Wash your hands thoroughly.
- Eat plenty of fruits and vegetables.
- Cut down on added sugar consumption.



Sources: Edward Laskowski, MD, Joe Marino, NDTR, Fatima Cody, Stanford, MD, H. James Wedner, MD, Katherine Zeratsky, RDN

Foods That Boost the Immune System

Like any fighting force, the immune system army marches on its stomach. Healthy immune system warriors need good, regular nourishment. Eating a healthy diet that contains the nutrients you need is the best way to support your immunity.

Here are several noteworthy foods aimed at boosting the immune system:

Garlic - One clove contains 5 mg of calcium, 12 mg of potassium, and more than 100 sulfuric compounds - powerful enough to wipe out bacteria and infection (it was used to prevent Grangrene in both world wars). Garlic contains compounds that naturally act to destroy bacteria and infection, which helps support your immune system. Research suggests that consuming garlic may help reduce the risk of becoming sick and staying ill.

Citrus – increases white blood cells (needed for fighting infection)

Bell Peppers – vitamin C for those who don't want the sugar found in fruit

Broccoli - builds up your immune defenses in the most vital area of your body – your gut (gut flora is our first line of immune defense)

Ginger - anti-inflammatory and antioxidative properties

Leafy Greens such as Spinach and Kale – flavonoids, carotenoids, vitamins C & E

Yogurt – healthy bacteria/probiotic



Almonds - provides vitamin E and Manganese needed for healthy immune function

Turmeric – contains curcumin which has antioxidant and anti-inflammatory effects

Green Tea – contains flavonoids

Sunflower Seeds – vitamin e and antioxidants

Shellfish – packed with zinc which helps immune cells function better

Oats and Barley – boost general immunity, speeds up healing of wounds, and raises the effectiveness of antibiotics

Blueberries – antioxidants/flavonoids



Start Walking for Exercise, Author: Elizabeth A. Richards, PhD, RN, Associate Professor, Purdue University School of Nursing

Why walking? Walking is one of the best types of physical activities because it is accessible to almost everyone, doesn't require specific skills or equipment, is inexpensive, can be done in a variety of settings (in your neighborhood, at the mall, around a track), and can be performed at any chosen intensity.

How much walking and physical activity do I need? The current U.S. Physical Activity Guidelines recommend that adults get at least 150 minutes (2 hours and 30 minutes) each week of moderate intensity physical activity, such as brisk walking. This activity should be spread throughout the week.

Start Walking for Exercise Note: Doing a moderate amount of activity, such as brisk walking, is generally safe for most people. However, if you have any health concerns or medical conditions, be sure to check with your health-care provider for advice on starting your walking program.



How to get started

- Start slow and easy. If you haven't gone for a walk in a while, walk 10 minutes to start.
- Do some gentle stretching before, during, and after your walk. • Pay attention to your posture. Walk with your head lifted, eyes forward, and tummy pulled in.
- Focus on breathing. If you can't talk during your walks, you are trying to do too much. Slow down and take a few deep breaths. If you can sing, you are doing too little. Pick up your pace a bit. • Bring water and wear a hat on sunny days
- . • In the cold, wear layers, a hat, and gloves. Your base layer should fit snugly to keep you warm and wick away moisture. Your outer layer should block the wind.
- Wear a comfortable pair of gym shoes. If your shoes are new, break them in before starting your walk.
- Slowly increase the pace, distance, and/or frequency of your walks. Set goals.

Set short-term and long-term goals.

- If you currently don't have a walking routine, try setting a short-term goal of 10–15 minutes of walking 4–5 times a week. After you have met this goal for a few weeks, gradually increase the time and frequency of your walks.
- Set a long-term goal of walking 30-60 minutes, 5-7 days a week.
- Track your progress by recording how long and how far you walked each time and how you felt during your walks. This could be done with paper and pen or by using a smartphone app such as MapMyWalk or Walkmeter. Over time, you will see how your walks add up, and the next day's walk won't seem as intimidating when you see how much you've already done.

- Add your walks into your calendar or to-do list. This helps make your walks part of your daily routine instead of an extracurricular activity.

Tips to add walking into every day

- Park farther away from your place of work, the grocery store, the mall entrance, etc.
- Walk during your lunch break.
- Instead of having coffee with friends, take a walk with them.
- While at work, instead of emailing a colleague, walk to that person's desk.
- Whenever you are on your cellphone, stand up and walk around.

For more information:

U.S. Physical Activity Guidelines Resources: https://health.gov/sites/default/files/2019-09/Physical_Activity_Guidelines_2nd_edition.pdf

USDA Choose MyPlate Physical Activity: <https://www.choosemyplate.gov/resources/physical-activity>

INShape Indiana: www.inshapeindiana.org/

American Heart Association: www.heart.org/en/healthy-living/fitness/walking

WebMD Fitness and Exercise: <https://www.webmd.com/fitness-exercise/guide/walking-for-exercise#1>

Mayo Clinic Walking Schedule: <https://www.mayoclinic.org/healthy-lifestyle/fitness/in-depth/art-20050972>



The American Alliance for Healthy Sleep- Quick Sleep Tips

Follow these tips to establish healthy sleep habits:

- Keep a consistent sleep schedule. Get up at the same time every day, even on weekends or during vacations.
- Set a bedtime that is early enough for you to get at least 7 hours of sleep.
- Don't go to bed unless you are sleepy.
- If you don't fall asleep after 20 minutes, get out of bed.
- Establish a relaxing bedtime routine.
- Avoid making your bedroom multipurpose
- Make your bedroom quiet and relaxing. Keep the room at a comfortable, cool temperature.
- Limit exposure to bright light in the evenings.
- Turn off electronic devices at least 30 minutes before bedtime.
- Don't eat a large meal before bedtime. If you are hungry at night, eat a light, healthy snack.
- Exercise regularly and maintain a healthy diet.
- Avoid consuming caffeine in the late afternoon or evening.
- Avoid consuming alcohol before bedtime.
- Reduce your fluid intake before bedtime.



Handwashing is one of the best ways to protect yourself and your family from getting sick as recommended by the CDC.

Washing your hands is easy, and it's one of the most effective ways to prevent the spread of germs. Clean hands can stop germs from spreading from one person to another and throughout an entire community—from your home and workplace to childcare facilities and hospitals.

Follow these five steps recommended by the CDC

1. **Wet** your hands with clean, running water (warm or cold), turn off the tap, and apply soap.
2. **Lather** your hands by rubbing them together with the soap. Lather the backs of your hands, between your fingers, and under your nails.
3. **Scrub** your hands for at least 20 seconds. Need a timer? Hum the “Happy Birthday” song from beginning to end twice.
4. **Rinse** your hands well under clean, running water.
5. **Dry** your hands using a clean towel or air dry them.

With these healthy tips you can begin boosting your immune system today!



References and Additional Resources:

<https://www.ncbi.nlm.nih.gov/>

<https://www.health.harvard.edu/staying-healthy/how-to-boost-your-immune-system>

<https://www.cdc.gov/handwashing/when-how-handwashing.html>

<https://health.usnews.com/wellness/food/slideshows/foods-that-can-support-your-immunity>

Contact the Purdue Extension educator in your county for additional information on health and wellness topics www.extension.purdue.edu