



Solutions Suite
Tools for Health

Enhancing Your Immune Health

Facilitator's Guide

Modules 1-5



**UIC Center on Mental
Health Services
Research and Policy**



**Collaborative
Support Programs of
New Jersey**

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INTRODUCTION

Due to the COVID-19 pandemic, many people are seeking information and tips for enhancing their immune systems. Nobody likes being sick, whatever the cause, so it's natural to look for ways to avoid infection and illness. We want our bodies to be as strong as possible!

It's important to understand that our immune system is not a single organ in our bodies. Instead, it is a complex system that works on many different levels to fight infection. This means that our immune systems cannot technically be boosted, even though many people on TV, the internet, and social media say otherwise. However, we can improve our immune health to feel better and be healthier. Also, we can take precautions to avoid infections and illnesses.

This manual has 5 modules. You can use each one separately to educate about enhancing immune health. Or, you can use all of the modules together to teach a 5-week class on improving immunity. We've designed this material specifically to educate people with lived experience of mental illness, but it can be used by anyone who wishes to understand and enhance their immune health.

The modules are:

Module 1: What is Immune Health?

Module 2: Vaccination & Health Screening for Immunity

Module 3: Adequate Sleep for Immune Health

Module 4: Managing Stress for Stronger Immunity

Module 5: Functional Foods, Immunity Aids, & Credible Health Information

Each module uses an “**Explain, Evaluate, and Engage**” framework. We **explain** the key information to know in each area. Using exploration and activities, we then **evaluate** what participants already know about immune health. This is followed by further information. Each module also includes **engaging activities** to work on improving immunity and health.



Enhancing Your Immune Health

Module 1



**UIC Center on Mental
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Module 1: What is Immune Health?

Explain

Guide participants to understand that our immune system is not one simple structure or action in our bodies. Instead, it is a complex network functioning on many different levels to fight infection. Our immune system recognizes harmful bacteria, viruses, and parasites when they enter our bodies. Once recognized, our system takes immediate action to destroy them.

Humans have two types of immunity. One is called innate or **natural immunity**. The other is called adaptive or **learned immunity**. This is complicated, but we'll break it down to make it easier to understand.

Evaluate

Invite participants to share what they know about how their body fights infection. You don't need to fully address their misunderstandings right now. Just take note of what they know and do not know. Stick to what they **know** versus what they **do**, which is addressed later .

Emphasize that it's ok if they don't know much yet, since many people don't understand how immunity works. Also, there are plenty of myths and misconceptions out there.

Sample questions to choose from include the following.

What have you learned from others about how your body fights off infection?

What kinds of problems does our immune system help to fix?

Why do you think people get sick?

Explain

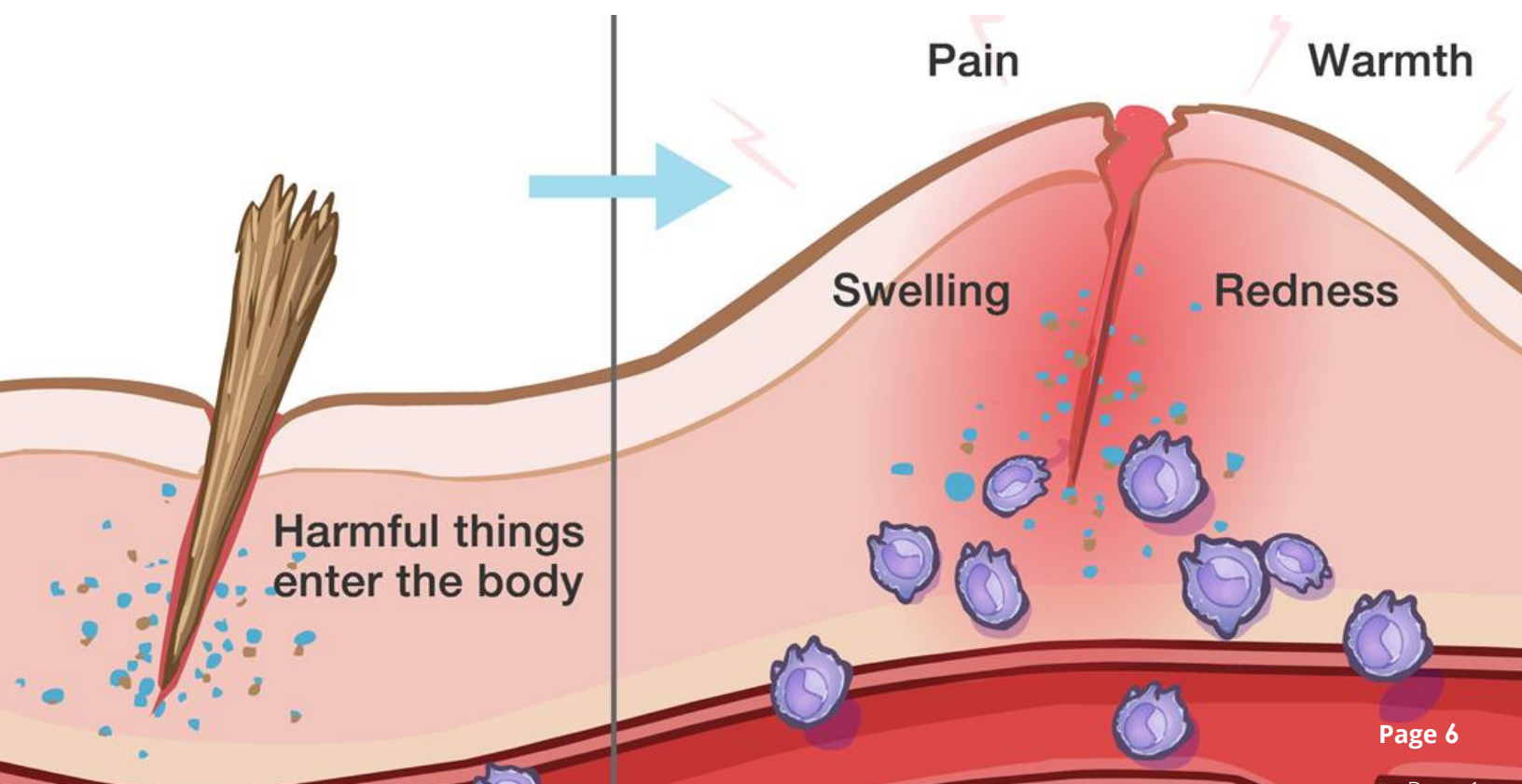
Guide participants to understand that **natural immunity** is the first thing the body does when fighting bacteria, viruses, or parasites that try to enter our bodies. Our bodies have protective barriers to keep out harmful germs.

- Our **skin** keeps the majority of germs from entering our bodies
- **Mucus** in our nose and throat traps germs, which are then removed by sneezing or coughing
- **Stomach acids** kill germs
- Certain **substances in our sweat and tears**, called enzymes, help fight bacteria
- **Immune cells** attack unwanted or harmful cells that enter our bodies

Another part of our body's natural immune response is called inflammation. You may hear the words infection and inflammation used together, but they are different.

Infection refers to germs entering and growing in our bodies when our protective barriers did not keep them out.

Inflammation is what our bodies do to fight infection. The four signs of inflammation include a feeling of warmth, redness, swelling, and pain. It feels bad when we feel pain and swelling around a wound. But these things let us know that our body is working to heal. When inflammation occurs, our bodies also send out white blood cells to fight infection. All this means that temporary inflammation is helpful when we are sick.



Evaluate

Invite participants to reflect on natural immunity by asking the following.

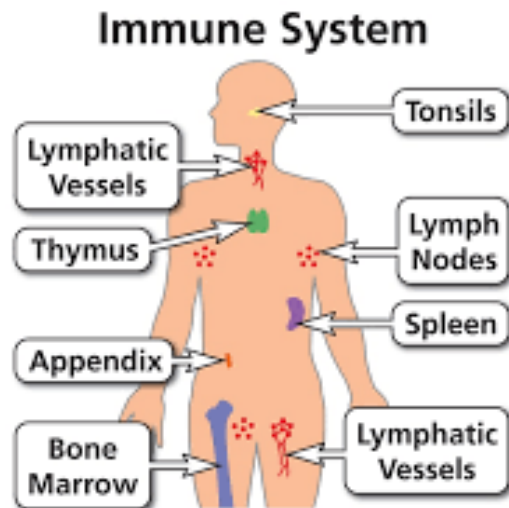
What do you think about the information so far?

Are you surprised by how many protective barriers we have to fight illness?

Did you know that temporary inflammation is actually good because it helps reduce infection?

Explain

Guide participants to understand that *learned immunity* is when our bodies learn over time to recognize bacteria, viruses, or other germs that cause illness. Learned immunity is controlled by cells and organs in our bodies, like the spleen, thymus, bone marrow, and lymph nodes.



When something harmful, like a virus, enters our bodies, these cells and organs create both immune cells and antibodies to destroy it. Antibodies are a kind of protein that builds immunity. As we talked about earlier, this response is part of our natural immunity. But, then our bodies do something amazing. *Our immune system learns to remember the harmful virus, so the next time we catch it, our body is ready to destroy it.* As covered in another module, this is also how vaccines work, by introducing a sort of blueprint for our bodies to learn to wipe out specific viruses.

Evaluate

Invite participants to reflect on learned immunity by asking one or more of these questions.

What do you think about this information on learned immunity?

Did you know that your body learns over time how to fight certain illnesses?

What's your thinking about vaccines helping your body learn how to destroy specific viruses?

Explain

Share that despite what people hear from TV, the internet, or social media, there are no quick fixes to boost our immune health. Other than vaccination, there is no one medicine or supplement we can take to have a stronger immune system. Like many things in life, we need to commit ourselves to choosing healthier habits.

We'll talk more about these habits in other modules, but some that are proven to make our immune health better are:

- keeping current on vaccinations
- getting regular medical & lab tests to make sure our bodies have what they need
- getting good sleep
- managing our stress & getting exercise
- eating certain foods or taking certain supplements, if you need them
- going outdoors for sunshine

Other simple behaviors to protect immune health include:

- wearing a mask when in public, or when around people who are ill or unvaccinated
- washing hands throughout the day: when coming in from outdoors, before and after preparing and eating food, after using the toilet, after coughing or blowing your nose
- sneezing or coughing into a tissue or your inner elbow to prevent the spread of germs

Engage

Help participants complete the [Module 1 Review](#) worksheet to reinforce important information.

Use the [Module 1 Immunity Quiz](#) to review concepts with participants. If you wish, you can ask participants to take it before and after this module. This will help you to assess what they have learned and what concepts require additional review.

Ask participants to complete the [Immune Health Behaviors log](#) over the coming week to track how many times they engage in protective activities. Review with them what information they'll record and how often.

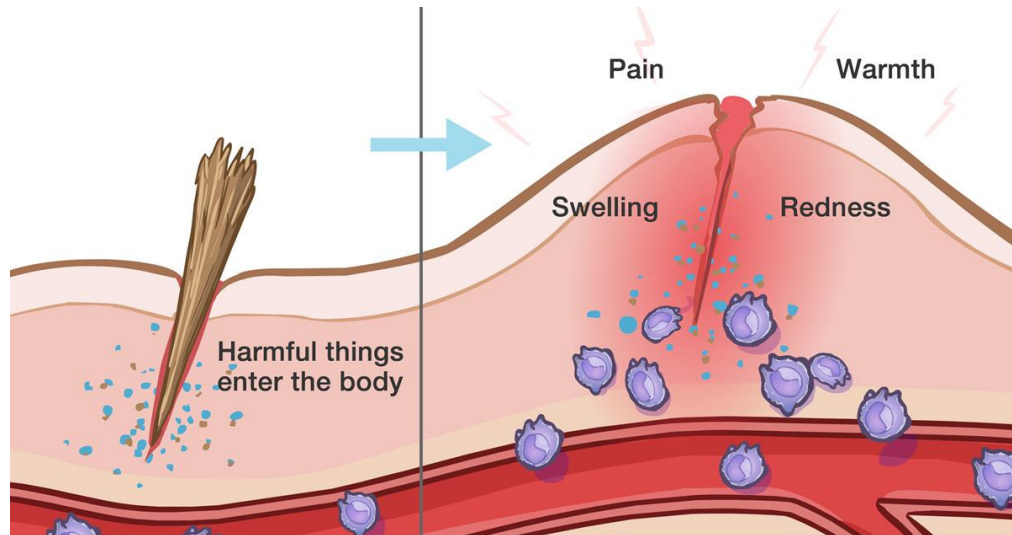


MODULE 1 HANDOUTS & WORKSHEETS

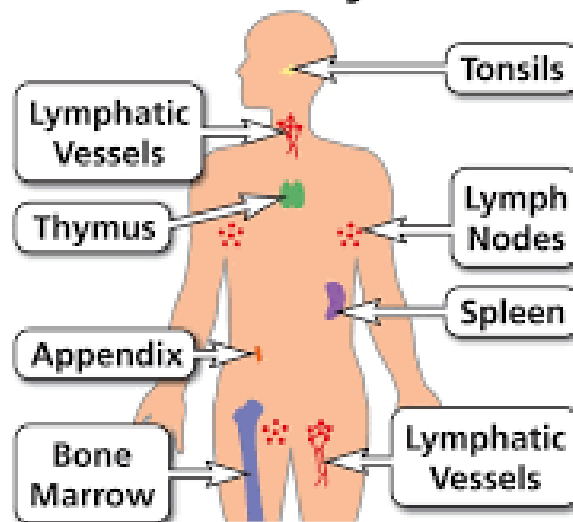


Understanding Immunity

This is how infection can lead to inflammation to start the healing process:



The organs and tissues of our Immune System



Strategies for better immune health



Module 1 Review

Some of my body's protective barriers against germs are:

Signs of inflammation:

Some habits to support my immune health

My questions or notes



MODULE 1: IMMUNE HEALTH QUIZ

THESE QUESTIONS ARE TO REVIEW WHAT YOU KNOW OR HAVE LEARNED ABOUT IMMUNITY SO FAR. DON'T WORRY IF YOU GET SOME WRONG! THAT SHOWS WHERE MORE REVIEW WOULD BE HELPFUL.

1. Learned immunity is controlled by...
 - a. Heart and lungs
 - b. Liver and kidneys
 - c. Cells and organs like the spleen and bone marrow
 - d. Frontal and temporal lobe of the brain
2. Inflammation...
 - a. Opens air flow in lungs
 - b. Is helpful for fighting infection
 - c. Benefits us when it is chronic
 - d. Clears skin irritation or rashes
3. Enzymes in our sweat and tears...
 - a. are cells that attack unwanted or harmful cells
 - b. work as an acid to destroys germs
 - c. form traps for pathogens
 - d. are anti-bacterial to kill germs
4. How does skin help our immunity?
 - a. Protects against hot weather
 - b. Protects against cold temperature
 - c. Keeps out the majority of harmful germs
 - d. Absorbs the rays of the summer sun
5. One of the best ways to strengthen immunity is to...
 - a. Have surgery
 - b. Get good sleep
 - c. Drink alcohol
 - d. Take oral steroids
6. What is one benefit of temporary inflammation?
 - a. Helps the stomach digest food
 - b. Helps us deal with healthy stress
 - c. Decreases mucus to dry out the sinuses
 - d. Sends signals to release white blood cells to fight infection
7. Natural immunity is a first-line defense against...
 - a. prediabetes and diabetes
 - b. bacteria and viruses
 - c. vaccinations and side-effects
 - d. common colds and fevers

Answer key: 1c, 2b, 3d, 4c, 5b, 6d, 7b



IMMUNE HEALTH HABITS LOG

IN THE EVENINGS THIS WEEK, PUT A MARK IN THE COLUMN NEXT TO THE IMMUNE HEALTH HABITS YOU'VE USED DURING THE DAY. NOTICE HOW OFTEN YOU DO THINGS TO PROTECT YOUR OWN & OTHERS' HEALTH!

I wore a mask in public or indoors when close to others.	
I washed my hands throughout the day, especially when coming home, before meals, after the bathroom, & after coughing/blowing my nose.	
I sneezed or coughed into a tissue or my inner elbow to prevent the spread of germs.	
I got 7-8 hours of good sleep.	
I did something to reduce my stress like deep breathing, yoga, exercise, hobbies, etc.	
I ate healthy foods for at least one meal today.	
I took my prescribed medications as instructed.	
I used safe and proven supplements, if needed, like Vitamin D, Vitamin C, or Zinc.	

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Enhancing Your Immune Health

Module 2



**UIC Center on Mental
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Module 2: Vaccination & Health Screening for Immunity

Part 1: Understanding Vaccination & Immunity

Explain

Guide participants to understand that vaccines prevent diseases that can be dangerous or even deadly. They do this by greatly reducing the risk of infection. Vaccines work with the body's natural defenses to develop immunity to disease. People of different ages and circumstances need different vaccines to stay healthy. Some examples are a measles vaccine for children and a pneumonia vaccine for older people.

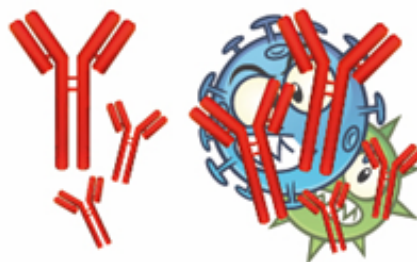
If you live with chronic conditions like diabetes or heart disease, even if they are well-controlled, you are vulnerable to infection. Your immune system needs the protection that vaccines provide. Certain jobs, like those in health care or that require traveling, put you at risk for diseases that vaccinations can help prevent or reduce.

All vaccines help develop immunity by imitating an infection. This almost never causes actual illness, but it does trigger an immune response in your body. That's why after getting some vaccines, you might feel tired or get a fever, chills, or headache. Your arm also might hurt where the shot was given. These symptoms are normal and last only a day or two. They are signs that your body is building immunity. The good news is that, once these side effects go away, your immune system will remember how to fight that disease in the future. This can save you from serious illness, going to the hospital, developing a disability, or even from dying.

HOW VACCINES WORK



A weak or dead form of the germ is introduced



This sparks your immune response to develop antibodies that remember the germ



The antibodies fight off the germ if it invades again

Evaluate

Invite participants to share what they know or have heard about vaccination in general. Emphasize that you're interested in what they know about how vaccines help fight disease and death. Today, you will not be discussing politics or what commentators have to say, especially about COVID-19 vaccines. Rather, you'll explore facts to help them decide whether to take various vaccines for their immune health.

Don't worry about correcting misinformation or misunderstandings right now. Just take note of what they know and do not know about vaccines. Here are some questions to choose from.

What have you learned about how vaccines work in the body?

Did you get vaccines when you were a child? Why or why not? How do you think this helped you?

After vaccination, it often takes a few weeks for the body to produce infection-fighting cells. This means it's possible to become ill with the disease shortly after vaccination because the vaccine hasn't had enough time to start working. So, you should keep doing things that prevent illness, like wearing a mask or avoiding others who are coughing or sneezing, for 2-3 weeks after vaccination.

Some vaccines are given in more than one dose such as the shingles and COVID vaccines. In these cases, it's important to remember that the first dose does not provide full immunity. For other vaccines, immunity wears off over time. At that point, a "booster" dose is needed. Boosters to supplement the original vaccine are also needed for viruses that change or mutate. Further, in the case of flu vaccines, doses are needed every year because flu viruses change each season.

Explain

Explain

Some people believe that it's better to build immunity by allowing oneself to get the disease instead of getting vaccinated for it. The problem with this approach is that many diseases for which vaccines are available can cause severe complications and even death. This is true even for common diseases like chickenpox or flu. It is impossible to predict who will get serious infections that may lead to hospitalization or worse.

You may have heard the term "herd immunity" in the news. Herd immunity occurs when a large portion of a community becomes immune to a disease, which stops it from spreading. As a result, the whole community becomes protected.

The percentage of immunized people needed in order to achieve herd immunity varies by disease. The more contagious a disease, the greater the number of people who must be immune to stop its spread. There are two main paths to herd immunity: getting vaccines or getting infected.

There are major problems with relying on getting infected to create herd immunity. First, it's not clear how long someone is protected from getting sick again after recovering from certain diseases like flu or COVID-19. Even if you develop some immunity, it's still possible that you could get it again. Additionally, the high number of infections needed to achieve herd immunity could lead to tens of thousands of deaths before herd immunity develops, especially among older people, children, and those with existing health conditions. Also, even if you don't die from the disease, you could develop chronic health problems from it, which can quickly overwhelm the health care system. Finally, the longer the virus lingers in a community, the more likely it will mutate and become even harder to wipe out.



Evaluate

Explore what it's been like for participants to receive vaccines in the past. Some possible questions to choose from include the following.

**When's the last time you received a vaccine?
What was that like for you?**

What have you heard about why people avoid getting vaccinated?

Explain

Two vaccines in particular can be controversial or confusing for some people: flu vaccine and COVID-19 vaccine. Again, without engaging in a political discussion, share with participants that you want to cover some facts about these 2 vaccines. You aren't trying to pressure them or make them feel stressed. Instead, you want to share information that they can use to decide what works for them.

First is the flu vaccine. Flu, also called influenza, is a potentially serious disease that can lead to hospitalization and sometimes death. Every flu season is different, and the flu affects people in different ways. Millions of people get it every year, hundreds of thousands of them are hospitalized, and thousands to tens of thousands die from flu-related causes every year. The best way to avoid these risks is to get an annual flu shot. Let's look at some myths and facts about the flu. [Review the Flu Facts & Myths handout](#) (also at the end of this Module).

FLU MYTHS VS. FLU FACTS

MOST COMMON MYTHS SURROUNDING THE ANNUAL FLU VACCINE

MYTH: Vaccines are not proven to prevent the flu



FACT: You are at least 60% less likely to become infected with the influenza virus

MYTH: The flu vaccine can give me the flu



FACT: Flu viruses in flu shots are inactivated, so they cannot cause infection

MYTH: I should wait to get vaccinated so I'm covered until the end of the season



FACT: Get the vaccine as soon as possible. It takes 2 weeks for antibodies to develop

MYTH: The flu shot will protect me from every type of flu virus



FACT: The flu shot is designed yearly to protect against the highest risk/actively circulating strains of influenza

MYTH: I never get the flu. I do not need the flu shot



FACT: By getting the flu vaccine, you protect yourself and others because you are less likely to spread the flu

Explain

The second vaccine that can be confusing is the one for COVID-19. Just like the flu, COVID is a potentially serious disease that can lead to hospitalization, disability, and death. Hundreds of thousands of people have died from COVID since it first appeared in the U.S. in early 2020. Thousands of people, including children, experience disabling symptoms for months after having COVID.

One of the best ways to avoid getting or spreading COVID is to get the vaccine. There is a lot of confusing and misleading information about the vaccine, especially on the Internet and social media. Let's review some simple facts about the vaccine and its effectiveness. Review the [COVID-19 Vaccine Facts & Myths handout](#) (also at the end of this Module).

6 MYTHS
about the COVID-19 Vaccine

- MYTH** COVID-19 vaccine alters DNA
FACT mRNA doesn't enter a cell's nucleus and cannot change DNA
- MYTH** It isn't safe because of quick rollout
FACT Thorough safety standards and trials were met
- MYTH** Food allergy, immunocompromised, breastfeeding or pregnant people can't get the vaccine
FACT These people can get the vaccine
- MYTH** I'll get COVID-19 from vaccine
FACT The vaccine cannot give you the virus - it protects you
- MYTH** I've had COVID-19 so I don't need the vaccine
FACT Natural immunity length is unknown - vaccine fights reinfection
- MYTH** No need for mask or social distancing after vaccine
FACT You must still take precautions to help end the pandemic

In summary, like any medication, vaccines can cause some side effects. The most common are mild to moderate and only last a day or two. Even with access to good health care, the diseases that vaccines prevent can be very serious, and vaccination is the best way to avoid them. Also, keeping up with vaccines is the best way to stop spreading illnesses to other people, so we're not only protecting ourselves but others too.

Part 2: Health Screening to Promote Immune Health

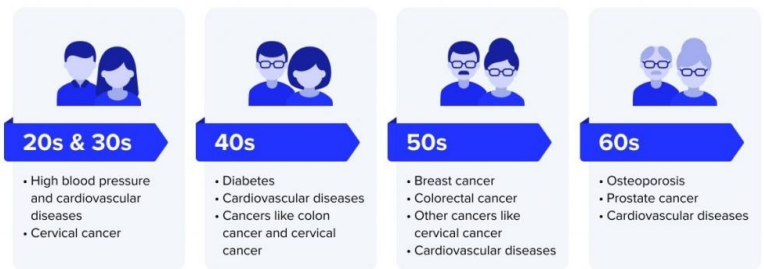
Explain

Many of us avoid going to the doctor, especially when we're feeling well. People often dread hearing bad news from a doctor, so they put off going for as long as possible. But, the sooner we can identify problems, the better chance we have to develop an action plan. There are many risk factors that people can control, once they understand their overall health, such as quitting smoking, maintaining a healthy weight, cutting down on alcohol or drugs, and being physically active.

Guide participants to understand that one of the best ways to support overall immune health is to have an annual physical exam done by a medical provider. An annual physical helps providers know whether and how you're dealing with any medical conditions that make you more vulnerable to viruses like colds and flu. Lab tests will establish whether you need vitamins or minerals to help with your immune health. Foods and supplements that support immunity are reviewed in another module.

Health Screening: Recommended Screening by Age

mydoc
Empathy. Intelligence.



Invite participants to share their experiences with preventive care. Some questions to choose from include the following.

Have you had an annual check-up recently?

How do you feel about your current health habits, such as healthy eating or exercise?

Are you comfortable with your current medical provider? Why or why not?

Evaluate

Engage

Help participants complete the [Module 2 Review](#) worksheet to reinforce important information.

Review the handouts at the end of this Module on [recommended vaccinations and preventive health screenings](#). This will alert participants as to whether they are due for any shots or screenings. Remember you're providing information that can help participants work with their medical providers to make the best decisions for themselves.

Also help participants to complete the handout recording [questions for their medical providers](#). Writing questions down helps people remember what to ask, so they get the most out of their health care visits.

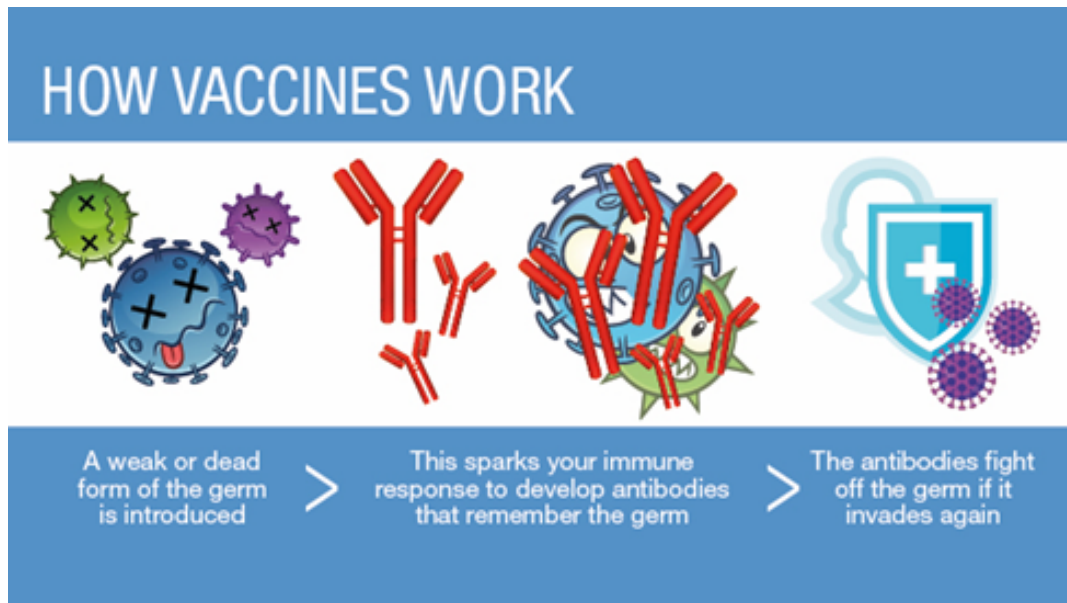
Vaccine	19–26 years	27–49 years	50–64 years	≥65 years
Influenza inactivated (IIV) or Influenza recombinant (RIV4) or Influenza live, attenuated (LAIV4)	1 dose annually			
Tetanus, diphtheria, pertussis (Tdap or Td)	1 dose Tdap each pregnancy; 1 dose Td/Tdap for wound management (see notes)			
Measles, mumps, rubella (MMR)	1 dose Tdap, then Td or Tdap booster every 10 years			
Varicella (VAR)	1 or 2 doses depending on indication (if born in 1957 or later)			
Zoster recombinant (RZV)	2 doses (if born in 1980 or later)		2 doses	
Human papillomavirus (HPV)	2 or 3 doses depending on age at initial vaccination or condition	27 through 45 years		
Pneumococcal conjugate (PCV13)	1 dose			1 dose
Pneumococcal polysaccharide (PPSV23)	1 or 2 doses depending on indication			1 dose
Hepatitis A (HepA)	2 or 3 doses depending on vaccine			
Hepatitis B (HepB)	2 or 3 doses depending on vaccine			
Meningococcal A, C, W, Y (MenACWY)	1 or 2 doses depending on indication, see notes for booster recommendations			
Meningococcal B (MenB)	2 or 3 doses depending on vaccine and indication, see notes for booster recommendations			
<i>Haemophilus influenzae</i> type b (Hib)	19 through 23 years	1 or 3 doses depending on indication		

MODULE 2 HANDOUTS & WORKSHEETS



How Vaccines Work

This is an overview of how most vaccines work.








This is how vaccines help to keep people safe.



Understanding the flu vaccine.

FLU MYTHS VS. FLU FACTS







MOST COMMON MYTHS SURROUNDING THE ANNUAL FLU VACCINE

MYTH: Vaccines are not proven to prevent the flu		FACT: You are at least 60% less likely to become infected with the influenza virus
MYTH: The flu vaccine can give me the flu		FACT: Flu viruses in flu shots are inactivated, so they cannot cause infection
MYTH: I should wait to get vaccinated so I'm covered until the end of the season		FACT: Get the vaccine as soon as possible. It takes 2 weeks for antibodies to develop
MYTH: The flu shot will protect me from every type of flu virus		FACT: The flu shot is designed yearly to protect against the highest risk/actively circulating strains of influenza
MYTH: I never get the flu. I do not need the flu shot		FACT: By getting the flu vaccine, you protect yourself and others because you are less likely to spread the flu

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Understanding the COVID-19 vaccine.

6 MYTHS about the COVID-19 Vaccine

 <p>MYTH COVID-19 vaccine alters DNA</p> <p>FACT mRNA doesn't enter a cell's nucleus and cannot change DNA</p>	 <p>MYTH It isn't safe because of quick rollout</p> <p>FACT Thorough safety standards and trials were met</p>	 <p>MYTH Food allergy, immunocompromised, breastfeeding or pregnant people can't get the vaccine</p> <p>FACT These people can get the vaccine</p>
 <p>MYTH I'll get COVID-19 from vaccine</p> <p>FACT The vaccine cannot give you the virus - it protects you</p>	 <p>MYTH I've had COVID-19 so I don't need the vaccine</p> <p>FACT Natural immunity length is unknown - vaccine fights reinfection</p>	 <p>MYTH No need for mask or social distancing after vaccine</p> <p>FACT You must still take precautions to help end the pandemic</p>

Module 2 Review

Vaccines work by:

Some benefits of vaccination are:

Annual health screenings are important for immune health because:

My questions or notes

Recommended immunizations by age.



Table 1 Recommended Adult Immunization Schedule by Age Group, United States, 2021

Vaccine	19–26 years	27–49 years	50–64 years	≥65 years
Influenza inactivated (IIV) or Influenza recombinant (RIV4) or Influenza live, attenuated (LAIV4)		1 dose annually or 1 dose annually		
Tetanus, diphtheria, pertussis (Tdap or Td)		1 dose Tdap each pregnancy; 1 dose Td/Tdap for wound management (see notes)		
Measles, mumps, rubella (MMR)		1 dose Tdap, then Td or Tdap booster every 10 years		
Varicella (VAR)		1 or 2 doses depending on indication (if born in 1957 or later)		
Zoster recombinant (RZV)		2 doses (if born in 1980 or later)	2 doses	
Human papillomavirus (HPV)		2 or 3 doses depending on age at initial vaccination or condition		
Pneumococcal conjugate (PCV13)				1 dose
Pneumococcal polysaccharide (PPSV23)		1 or 2 doses depending on indication		1 dose
Hepatitis A (HepA)		2 or 3 doses depending on vaccine		
Hepatitis B (HepB)		2 or 3 doses depending on vaccine		
Meningococcal A, C, W, Y (MenACWY)		1 or 2 doses depending on indication, see notes for booster recommendations		
Meningococcal B (MenB)		2 or 3 doses depending on vaccine and indication, see notes for booster recommendations		
<i>Haemophilus influenzae</i> type b (Hib)		19 through 23 years		
		1 or 3 doses depending on indication		

Recommended vaccination for adults who meet age requirement, lack documentation of vaccination, or lack evidence of past infection
 Recommended vaccination for adults with an additional risk factor or another indication
 Recommended vaccination based on shared clinical decision-making
 No recommendation/Not applicable

Health Maintenance Guidelines for Adults

Please Note

The following guidelines apply to healthy adults in the general population. The right plan for your care may differ based on your medical history, family history, personal preferences and lifestyle, as well as your physician's experience.

You and your physician should work together to develop a specific preventive health screening plan for you.

Some tests and vaccinations may not be covered by Medicare or by your health insurance plan, so it's important to check on your specific coverage before obtaining them.

Adult Screening Guidelines

Breast Cancer Screening

Mammography

For women ages 40 and over

Frequency – Annually

Physician Breast Exam

For women ages 40 and over

Frequency – Annually

Breast Self-Exams (after instruction)

For women ages 20 and over

Frequency – Monthly

Cervical Cancer Screening

Pap Smear/Human Papilloma Virus (HPV) Testing

For women ages 21 to 65, or starting 3 years after the onset of sexual activity

Frequency – Annual Pap test without HPV test up to age 30; Pap test with HPV test every 3 years after age 30

(Screening Paps are not required after hysterectomy unless surgery was performed for cancer or precancerous disease)

Cholesterol Screening

Lipid Panel, including LDL

For all men and women starting at age 20, or earlier if Cardiac Risk Profile reveals high risk

Frequency – Every 5 years, or more frequently based on results and risk profile

Colorectal Cancer Screening

For men and women ages 50 to 75 (in certain situations, it also may be advisable from ages 75 to 85)

Screening Colonoscopy

Frequency – Every 10 years (preferred), OR

High Sensitivity Stool Occult Blood Testing

Frequency – Annual Screening, OR

Flexible Sigmoidoscopy

Frequency – Every 5 years, with high sensitivity stool occult blood testing every 3 years

Diabetes Screening

Fasting Plasma Glucose (preferred) or Random Plasma Glucose

For men and women ages 45 and over

Frequency – Every 3 years

CONTINUED

Education and Counseling

For all adults

- Smoking Cessation
- Alcohol and Drug Abuse Prevention
- Seat Belt Safety
- Safe Sex Practices
- Nutrition and Exercise
- Firearm Safety

For women entering, during and after menopause

- Hormone Replacement Counseling
- Osteoporosis Prevention

Adult Screening Guidelines CONTINUED

Hypertension Screening

Blood Pressure Measurement

For all men and women, regardless of age

Frequency – Every 1-2 years

Osteoporosis Screening

DXA (bone-density testing)

For women ages 65 and over, or starting at menopause if additional risk factors exist

Frequency – Baseline testing, with follow-up interval based on test results

Prostate Cancer Screening

Digital rectal exam (DRE) and prostate specific antigen (PSA) test/discussion with physician

For men 50 and over (starting at age 40 for African-Americans)

Frequency – Annually

Sexually Transmitted Disease Screening

Chlamydia testing

For sexually active females under age 25 or for those at risk (your physician can advise you on your risk)

Frequency – Annually, with Pap test

Adult Immunization Guidelines

Human Papilloma Virus (HPV) Vaccine (Gardasil—for Cervical Cancer)

For all females between ages 11 and 26

Frequency – One series of 3 vaccines

Diphtheria/Tetanus/Pertussis Vaccine

For men and women ages 19 to 64

Frequency – One time in place of the Diphtheria/Tetanus Booster

Influenza (Flu) Vaccine

For high-risk adults of any age with diabetes or heart, lung, kidney or immune disease

Frequency – Annually

For all adults ages 50 and over

Frequency – Annually

For any adult desiring immunization, regardless of age

Frequency – Annually

Diphtheria/Tetanus Vaccine

For men and women up to age 65

Frequency – Every 10 years

For men and women 65 or over

Frequency – Single vaccination only

Varicella Zoster Vaccine (for Shingles)

For adults ages 60 and older

Frequency – Single vaccination; no revaccination required

Pneumococcal Vaccine (for Pneumonia)

For adults ages 65 and over who are at average risk

Frequency – Initial vaccination; no revaccination required

For high-risk adults of any age with diabetes, cancer, or heart, lung, or immune disease

Frequency – Initial vaccination, with single revaccination 5 years later

Other vaccines that you may need:

Hepatitis A

Hepatitis B

Meningococcal (Meningitis)

Handout:
Getting Ready to See Your Doctor

Preparing for a visit with your doctor or health provider can help make the most of it.

<p>Bring with you to the doctor:</p>	<p>This form Your medical history (past surgeries, diagnoses, allergies) A list of your current medications (or bring the meds with you) Any X-rays or recent test results Your insurance card/information A pencil and paper to take notes An audio recorder or supportive person to take notes</p>
<p>Example questions to open the dialogue:</p> <p>You don't have to ask all (or any) of these questions! They are examples of questions that doctors say they'd like their patients to ask when discussing a medical condition, surgery, or treatment. You may have additional or completely different questions.</p>	<p>Do I have any medical conditions? How long will they last? Do I need any other tests? What is the treatment you're recommending? Why? Are there other or alternative therapies? What over-the-counter medications would be helpful? What prescription medications would be helpful? What are the side effects? Will my present medications interfere with new medications?</p> <p>Should my diet change? Are there certain foods that I should eat or avoid? What lifestyle changes should I make?</p> <p>Should I schedule a follow-up visit? How long should I wait before seeing you again? Where can I get more information?</p>
<p>My top 3 questions for the doctor:</p> <p>Write what the doctor says on the back of this sheet. If you have lots of questions or instructions, ask your doctor if you can record your conversation.</p>	<p>1.</p> <p>2.</p> <p>3.</p>

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Enhancing Your Immune Health

Module 3



**UIC Center on Mental
Health Services
Research and Policy**



**Collaborative
Support Programs of
New Jersey**

Module 3: Adequate Sleep for Immune Health

Explain

Our body's **natural immunity** is made up of protective barriers, like skin and mucus, to keep out harmful germs. **Inflammation** is also part of our natural immunity, since it helps our bodies to fight infection.

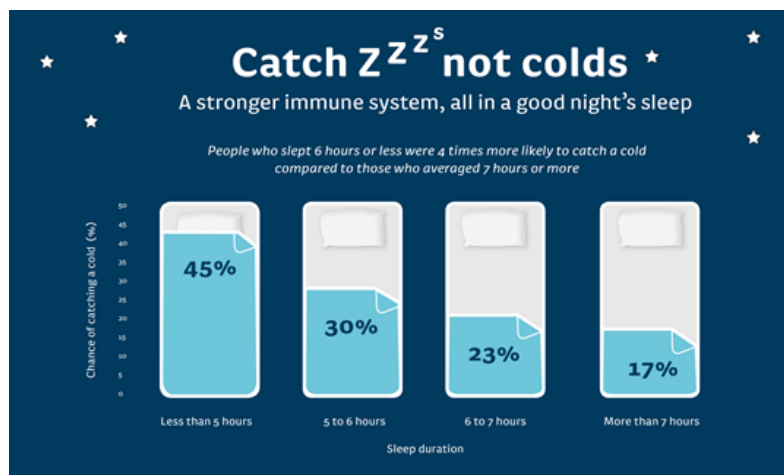
Learned immunity is when our bodies learn over time to recognize, and then fight, the germs that cause illnesses.

Sleep allows your body and brain to repair, restore, and reenergize. Research suggests that getting good sleep has a big impact on the strength of our immune systems. For example, we know that people who are exposed to a virus, like the common cold, are more likely to get sick from it when they haven't had enough sleep. A lack of sleep can also affect how quickly you recover when you do become ill.

Sleep helps both the **natural and learned immunity** discussed in Module 1.

Sleep strengthens your "immune memory." It does this by reinforcing your system's ability to remember and destroy harmful bacteria and viruses. Our bodies need energy to do this work. When we sleep, our breathing and muscle activity slow down. This frees up the energy that our immune system needs to do critical tasks.

For example, during sleep, your immune system releases **certain proteins called cytokines**, some of which promote good sleep. Also, when you have an infection, your body needs to produce more cytokines to help you recover. Unfortunately, a lack of sleep can decrease production of these germ-fighting cytokines. Also, your infection-fighting antibodies and cells are reduced when you do not get enough sleep. Believe it or not, one night of poor sleep can significantly reduce your immune response. In short, your body needs regular sleep to fight infectious diseases. You also need sleep to stay healthy in general. Sleep problems increase your risk of obesity, diabetes, and heart and blood vessel diseases.



Eye-opening reasons to get more shut-eye

@wellplaceHQ
well.place





Evaluate

Many people don't get enough good quality sleep. So, if this is true for you, you're not alone. Sleep problems are particularly common for people with mental health and substance use conditions, especially people living with anxiety, depression, bipolar disorder, and/or attention deficit hyperactivity disorder (ADHD).

Invite participants to reflect on the importance of sleep.

Here are some sample questions to choose from.

What happens when you don't get enough sleep?

How do you feel when you get a good night's sleep?

Have you learned anything new about your own sleep patterns?

Explain

Different medical conditions can affect the quality of your sleep. For example, some people who snore have a condition called sleep apnea, where they stop breathing for short periods many times a night. Sleep apnea harms the body by disrupting the supply of oxygen to important organs. People with this condition may need to use a special mouth guard, or a machine called a C-PAP. This stands for Continuous Positive Airway Pressure. Air flowing through the machine keeps them breathing and helps improve their sleep.

Many people have trouble falling asleep. Sometimes, people use drugs and alcohol to help them sleep. While this may help them fall asleep, they don't stay asleep as long and don't sleep as well. The sleep you get after taking drugs and alcohol is poorer quality sleep. This means it is less restful and less helpful for your immune health.

Explain

The good news is that there are things you can do to improve your sleep to build immune health.

The place where you sleep makes a difference in how you sleep. Many people sleep better in a room that is cool, dark, and quiet. There are other ways to create a restful sleeping environment.

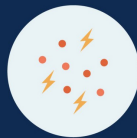
- If you can't control the noise around you, consider earplugs to block the noise. Some people find that a steady sound, like a fan, can help block noises that interrupt sleep.
- Too much light can make it more challenging to fall and stay asleep. Consider room-darkening shades or a sleep mask.
- If you have a TV, smart phone, or tablet, turn it off 30-60 minutes before going to sleep. The light from these screens can make it hard to fall asleep when you use them right before bedtime.
- Try to resolve your worries or concerns before bedtime. One way to do this is to keep a small pad and pen handy to jot down what is on your mind so you can set it aside for tomorrow.

Most of the time, you can change your sleep environment to strengthen your immune health.

DEEP SLEEP HAS MANY BENEFITS, INCLUDING:



Improved memory



Reduced anxiety & depression



Boosted immune system



Lowered risk of heart disease

Evaluate

Invite participants to reflect on barriers to sleep by asking them questions like those below.

What makes it hard for you to fall asleep and stay asleep?

What has helped you sleep better?

Which of these tips might be worth trying?



Explain

Establishing a bedtime or sleep routine can help you to get a good night's sleep. Daily habits most likely to affect the quality and quantity of your sleep include when you eat, your daily activities, and your bedtime routines.

Our sleep can be affected by what we eat, how much we eat, and when we eat.

- Nicotine, caffeine, and alcohol can disrupt your sleep schedule. The stimulating effects of nicotine and caffeine take hours to wear off and can greatly interfere with quality sleep. Caffeine is found in many things, like coffee, caffeinated tea, soft drinks like cola, energy drinks, and even chocolate. When possible, try to replace caffeinated drinks with water or another healthy beverage.
- Don't go to bed hungry or stuffed. In particular, avoid eating large meals or heavy foods within a couple of hours of bedtime. Doing so may disrupt your digestion and affect your sleep. Cut back on rich and heavy meals, especially in the evening.

5 Tips for Better Sleep

STICK TO A SCHEDULE
Go to sleep at the same time every night and wake up at the same time every day, even on your days off.
Our bodies really like routine.

PAY ATTENTION TO WHAT YOU EAT & DRINK
Caffeine can stay in your system for up to 8 hours. So if you plan on being in bed by 10, you need to have your last coffee by 2. Don't forget - chocolate contains caffeine too.
Foods that promote good sleep are nuts, lean protein, spinach & other green veggies.
Cherries can make a good bedtime snack because they include melatonin.

PUT AWAY DEVICES
Avoid blue light emitting devices such as cellphones, tablets and computers at least two hours before bedtime.
Blue light ceases the production of melatonin, which is the hormone that promotes sleep.

MAKE EXERCISE PART OF YOUR ROUTINE
Exercise is a good way to wear yourself out and get better sleep.
However, don't exercise too close to bedtime. It can stimulate you so you won't want to sleep. Give yourself 2-3 hours before you plan to sleep to complete your exercise.

CREATE AN IDEAL SLEEP ENVIRONMENT
Start with something that will help you relax like dimming the lights, taking a warm bath, writing down your thoughts, or meditating.
Keep your bedroom for sleep only.
Our bodies are cued by light and darkness, so a little light can affect your circadian rhythm. Face the alarm clock away from you or don't keep it near your bed.

Explain

Our daily activities also affect how easily we fall asleep and stay asleep.

- **Daytime naps can interfere with nighttime sleep. If you choose to nap, limit yourself to 30 minutes or less, and avoid napping late in the day.**
- **Regular physical activity can promote better sleep. It's a good idea to spread your physical activity throughout the day in order to improve sleep and reduce stress. But avoid being active too close to bedtime, which can make it hard to fall asleep.**
- **Spending time outside every day can be good for your sleep. Fresh air triggers a number of bodily changes that can improve your sleep.**

Having a regular sleep schedule and bedtime routines is helpful.

- **Set aside no more than eight hours for sleep. The recommended amount of sleep for a healthy adult is at least seven hours.**
- **Plan to go to bed and get up at the same time every day, even on weekends or other days when you could sleep in.**
- **Create a restful nighttime routine. Try calming activities before bedtime, such as taking a bath, deep breathing, or using a relaxation technique. Feeling calm and relaxed might promote better sleep.**
- **If you don't fall asleep within about 20 minutes, leave your bedroom and do something relaxing. Read or listen to soothing music. Go back to bed when you're tired. Repeat as needed.**

Taking steps to improve your sleep patterns is good for your immune health.





Explain

Everyone has a sleepless night once in a while, for different reasons. However, if you often have trouble sleeping, contact your medical provider.

- It's important to identify any underlying causes of your sleep problems. Treating these can help you get the better sleep you need.
- Talk with your medical provider about what may be interfering with good sleep, and any recommendations to improve your sleep. Sharing information from a sleep diary (explained below) can help them make suggestions for better sleep.

Engage

You may benefit from learning about how well you are sleeping and how your habits affect your sleep. A sleep diary can help you with this. You use the diary to track when you go to bed, when you wake up, and how much sleep you get. You also can use it to monitor if you wake up during the night and can't get back to sleep immediately. You also can record your daily habits, such as whether you napped or exercised, as well as how much caffeine and alcohol you had. It is helpful to complete the log before bedtime, and then again in the morning to record the quantity and quality of your sleep.

Review the [NIH Sleep Diary Handout](#) with participants and encourage them to complete it during the coming week.

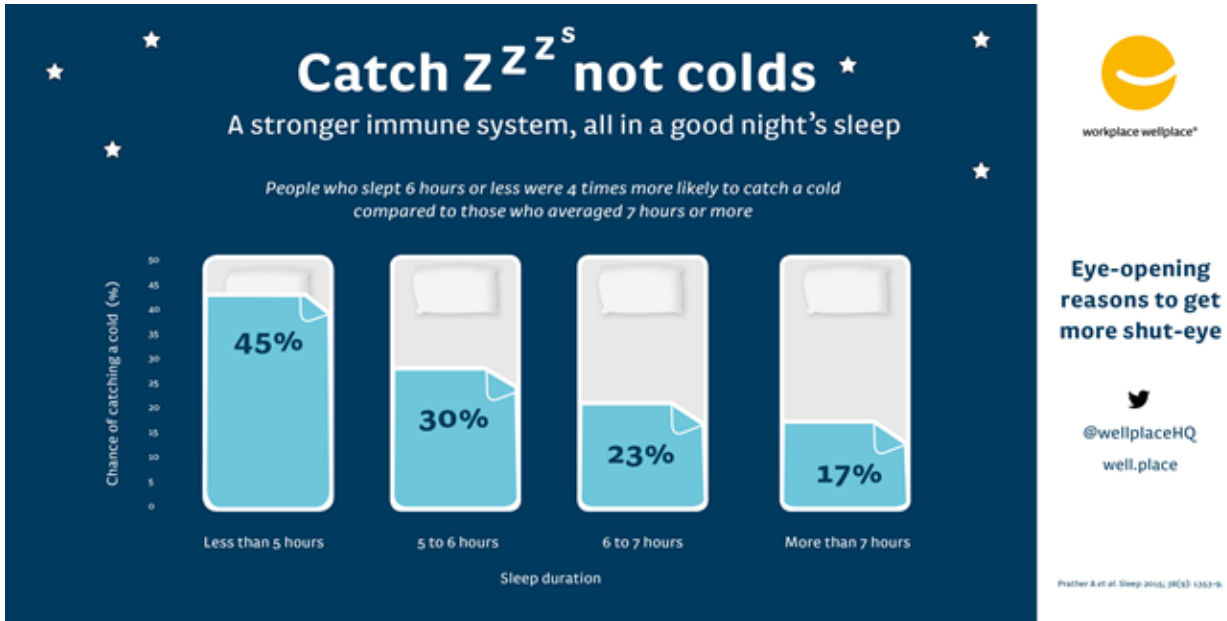
Help participants complete the [Module 3 Review](#) worksheet to reinforce important terms and concepts.

Invite participants to complete the [Sleep Goal Handout](#) to start working towards better sleep, if they wish.

MODULE 3 HANDOUTS & WORKSHEETS





Sleep helps our immune systems.



Why get more sleep?

DEEP SLEEP HAS MANY BENEFITS, INCLUDING:

-  Improved memory
-  Reduced anxiety & depression
-  Boosted immune system
-  Lowered risk of heart disease

Good sleep helps vaccines work better!

SUPPORT YOUR IMMUNE SYSTEM

Getting enough good sleep has both positive mental and physical effects. One key benefit of sleep is supporting a well-balanced immune system, which can help you prevent or limit infection in your body.



Vaccinations can be another way to help prevent illness. Getting enough sleep has been shown to help vaccines work in your body.

 NATIONAL SLEEP FOUNDATION

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5 Tips for Better Sleep

 <p>STICK TO A SCHEDULE</p> <p>Go to sleep at the same time every night and wake up at the same time every day, even on your days off.</p> <p>Our bodies really like routine.</p>	 <p>PAY ATTENTION TO WHAT YOU EAT & DRINK</p> <p>Caffeine can stay in your system for up to 8 hours. So if you plan on being in bed by 10, you need to have your last coffee by 2. Don't forget - chocolate contains caffeine too.</p> <p>Foods that promote good sleep are nuts, lean protein, spinach & other green veggies.</p> <p>Cherries can make a good bedtime snack because they include melatonin.</p>
 <p>PUT AWAY DEVICES</p> <p>Avoid blue light emitting devices such as cellphones, tablets and computers at least two hours before bedtime.</p> <p>Blue light ceases the production of melatonin, which is the hormone that promotes sleep.</p>	 <p>CREATE AN IDEAL SLEEP ENVIRONMENT</p> <p>Start with something that will help you relax like dimming the lights, taking a warm bath, writing down your thoughts, or meditating.</p> <p>Keep your bedroom for sleep only.</p> <p>Our bodies are cued by light and darkness, so a little light can affect your circadian rhythm. Face the alarm clock away from you or don't keep it near your bed.</p>
 <p>MAKE EXERCISE PART OF YOUR ROUTINE</p> <p>Exercise is a good way to wear yourself out and get better sleep.</p> <p>However, don't exercise too close to bedtime. It can stimulate you so you won't want to sleep. Give yourself 2-3 hours before you plan to sleep to complete your exercise.</p>	

Module 3 Review

2 ways that sleep supports immune health:

2 or 3 habits that can spoil good sleep:

2 or 3 habits that support good sleep:

My questions or notes

Sleep Diary



Use this sleep diary to record the quality and quantity of your sleep; your use of medicines, alcohol, and caffeinated drinks; and how sleepy you feel during the day. Bring the diary with you to review the information with your doctor.

Fill out before going to bed	Today's date:	June 13*							
	Number of caffeinated drinks (coffee, tea, cola) and time when I had them today:	1 drink, 8 p.m.							
	Number of alcoholic drinks (beer, wine, liquor) and time when I had them today:	2 drinks, 9 p.m.							
	Nap times and lengths today:	3:30 p.m., 45 minutes							
	Exercise times and lengths today:	None							
	How sleepy did I feel during the day today? 1—So sleepy I had to struggle to stay awake during much of the day 2—Somewhat tired 3—Fairly alert 4—Alert	1							
Fill out in the morning	Today's date:	June 14*							
	• Time I went to bed last night: • Time I got out of bed this morning: • Hours spent in bed last night:	11 p.m. 7 a.m. 8							
	Number of awakenings and total time awake last night:	5 times, 2 hours							
	How long I took to fall asleep last night:	30 minutes							
	Medicines taken last night:	None							
	How alert did I feel when I got up this morning? 1—Alert 2—Alert but a little tired 3—Sleepy	2							

* This column shows example diary entries—use as a model for your own diary notes.

Notes:

Sleep Diary



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	Number of alcoholic drinks (beer, wine, liquor) and time when I had them today:								
	Nap times and lengths today:								
	Exercise times and lengths today:								
	How sleepy did I feel during the day today? 1—So sleepy I had to struggle to stay awake during much of the day 2—Somewhat tired 3—Fairly alert 4—Alert								
Fill out in the morning	Today's date:								
	<ul style="list-style-type: none"> • Time I went to bed last night: • Time I got out of bed this morning: • Hours spent in bed last night: 								
	Number of awakenings and total time awake last night:								
	How long I took to fall asleep last night:								
	Medicines taken last night:								
	How alert did I feel when I got up this morning? 1—Alert 2—Alert but a little tired 3—Sleepy								

Notes:

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	Number of awakenings and total time awake last night:								
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Notes:

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Notes:

Sleep Diary



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	How long I took to fall asleep last night:								
	Medicines taken last night:								
	How alert did I feel when I got up this morning? 1—Alert 2—Alert but a little tired 3—Sleepy								

Page 2

Notes:

My Sleep Goal

01

Habits or life situations that interfere with my getting good sleep:

02

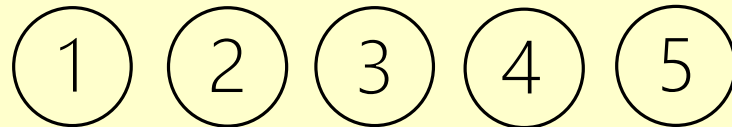
One thing I will change or add to my routine to get better sleep:

03

Some steps I can take to work on my goal this week:

04

My confidence for making this change or addition, with 1 being not confident and 5 being very confident:



To succeed, choose something specific, manageable, and measurable. This means saying what you'll do, how often/much, where, and why. For example, "I'll go to sleep in my bed (not on the couch) at 11pm and get up at 7am for 3 nights this week. This will give me more energy and better immune health."

If your confidence is lower than 3, see if you can adjust your goal or steps to be smaller or less frequent to start with.

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Enhancing Your Immune Health

Module 4



**UIC Center on Mental
Health Services
Research and Policy**



**Collaborative
Support Programs of
New Jersey**

Module 4: Managing Stress for Stronger Immunity

Explain

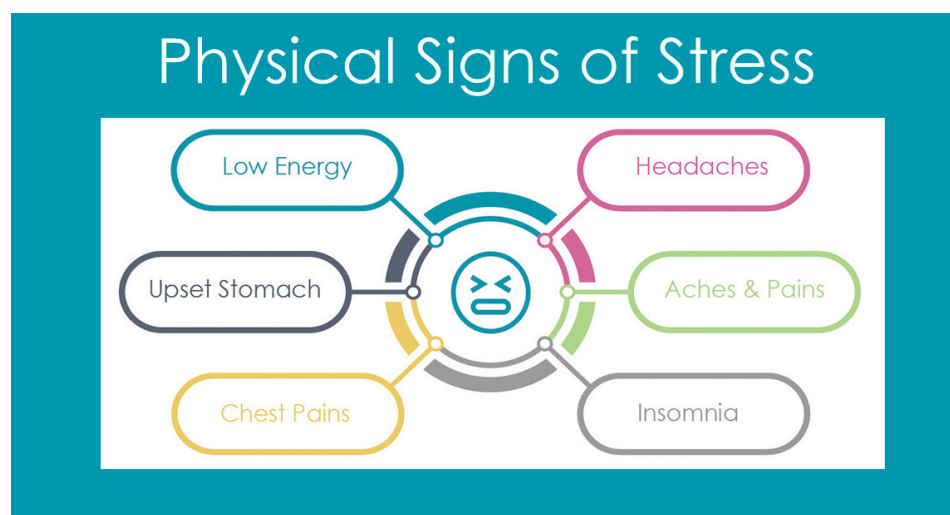
Everyone experiences stress. There are different types of stress that can be bad for physical and mental health. A stressful situation may happen just once, or happen over a short time, or it can happen a lot over a long time. People deal with stress differently. Some have better ways of coping and recover from stressful events more quickly than others. The good news is that there are many things you can do to manage stress.

Examples of stress or daily hassles include:

- Ongoing stress related to the pressures of family, work, school, and other daily responsibilities.
- Stress related to living with long-term health and mental health challenges.
- Sudden negative changes cause stress, such as losing a job, divorce, illness, or bad things happening in the world.
- Traumatic stress experienced during an event such as a major accident, war, assault, tragedy, or natural disaster.

People react differently to stressful situations. Some common signs of feeling stressed include:

- Physical discomfort, like shoulder tension, headaches, or jaw pain
- Mood changes, like feeling overwhelmed, anxious, sad, impatient, or angry
- Trouble with concentration
- Changes in appetite, energy, and sleep habits





Evaluate

Invite participants to reflect on their experiences of stress or daily hassles.

Choose from the following questions.

How do you know when you are stressed?

What is an example of a situation that is a hassle or stressful for you?

How have you dealt with stress in the past?

Explain

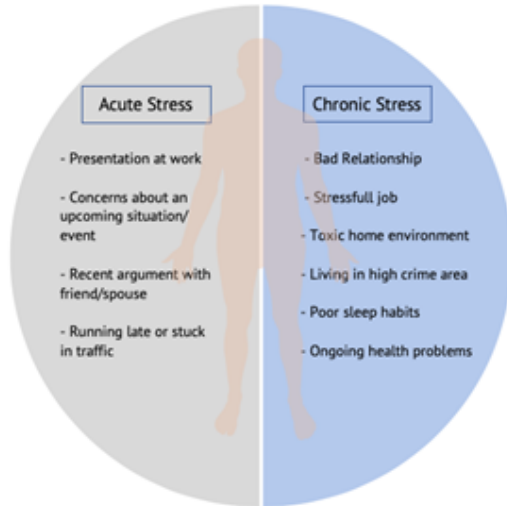
You may be surprised to learn that not all stress is bad for your immune health. Short-term stress improves your body's protective responses. When your body is healing from a cut or wound, you get a vaccine, or you are fighting an infection or tumor, your body's stress response triggers your immune system. In other words, short-term stress helps your body do what it's supposed to do.

Early human beings evolved to experience stress in response to immediate short-term dangers, like a falling rock or a charging tiger. In this situation, stress is helpful. The body responds to a danger like this by mobilizing energy to help us act quickly to survive. To do this, the body must limit energy used for "background functions" like immune health. After all, when you're in immediate danger, fighting off infection is less important than avoiding the tiger or the falling rock.

Today, we don't need to worry about tigers, but we still experience dangers like crossing busy streets or traffic accidents. In these situations, our natural stress response gives us the energy we need to get to safety.

Explain

Examples of Acute and Chronic Stress



Short-term, or acute, stress comes and goes. Your body reacts. Your body recovers from the stress.

When you feel stressed for a long time, though, that's called **chronic stress**. Chronic stress has different effects on our bodies. With chronic stress, the body never receives a clear signal to return to normal functioning and doesn't have a chance to recover.

Over time, chronic stress can affect your immune system, and can even cause a harmful immune response. Part of your natural stress response is to produce a **hormone called cortisol**. Long-lasting stress leads to the production of high levels of cortisol, which makes it harder for your body to manage inflammation. As discussed in Module 1, inflammation is your immune system's way of fighting harmful germs and promoting healing from injuries. However, chronic inflammation is bad for you. With lasting inflammation, you are more vulnerable to infection and to repeat infection. Stress also decreases your white blood cells. These are cells that your body uses to fight infection. The lower your level of white cells, the less able your body is to fight infection. If you are older, isolated, or lonely, or already have medical conditions, stress is even more likely to harm your immune health.

Long-Term Effects of Stress

Stress has both immediate and long term effects on the body.

While **acute stress** can help protect the body from dangerous stressors, **chronic stress** can have harmful effects on the body.

During the **stress response** the body releases hormones into the bloodstream that cause changes all over the body.

During acute stress, the level of these hormones returns to normal fairly quickly so their effects on the body are short lived.

During chronic stress, the level of these hormones stay elevated for long periods of time and their effects on the body are more long-term and harmful.

The infographic includes illustrations of a person reacting to a spider, a person at a desk, a blood vessel with hormones, a stopwatch, and a calendar.



Evaluate

Invite participants to reflect on the connection between stress and immune health by choosing from the following questions.

What are some short-term stresses or hassles you've faced in your life?

What are some examples of chronic stress from your life?

Does what you've learned about stress and the immune system fit with your experience?

Explain

There are plenty of things you can do to manage stress for better immune health. We'll talk about several stress relief tips, so you can choose what works best for you.

 <p>TAKE BREAKS FROM THE NEWS</p>	 <p>EAT HEALTHY, BALANCED MEALS</p>	 <p>AVOID ALCOHOL AND DRUGS</p>
 <p>MAKE TIME TO UNWIND</p>	 <p>STRESS RELIEF TIPS cdc.gov</p>	 <p>CONNECT WITH OTHERS</p>
 <p>EXERCISE REGULARLY</p>	 <p>GET PLENTY OF SLEEP</p>	 <p>TAKE DEEP BREATHS</p>

Explain

- Many people have found that when they meditate, or engage in mindfulness activities, for even a few minutes several times a week, their stress goes down. Meditation reduces cortisol levels and reduces inflammation.
- Deep breathing exercises reduce stress and help your body work against infection. Consider doing deep breathing daily, 5 to 10 minutes at a time.
- Some people use free smartphone applications (apps) to reduce stress. Calm and Headspace are two free phone apps that people use for meditation and calming exercises. They can be used at any point in the day for meditation or to help with deep breathing.
- Activities like yoga lower stress hormone levels and calm the nervous system to reduce inflammation.
- Regular physical activity, like walking or gardening, can be very helpful to reduce stress.
- Hobbies and enjoyable activities have been shown to reduce stress, like playing or listening to music, gaming, crafting, and reading.
- Connecting with other people, online or in-person, is another way to reduce stress and deal with daily hassles.



Engage

Help participants practice a relaxation exercise together.

This activity takes 1 to 3 minutes. There are three steps to the activity.

1. Check in.

Sit quietly. Stay upright and awake through the practice. Relax. If you want, you can try closing your eyes.

Become aware of the feelings in your body.

- What do you hear around you?
- What do you feel? Notice what it's like to sit. Pay attention to how your clothes feel against your skin. Feel what it is like to be in your body.
- You don't need to change anything, just become aware.

2. Focus on the breath.

Now, become aware of your breathing.

- Notice the sensations of your breath coming in and going out. You don't need to change your breath at all. Just be aware of breathing.
- Make your breath the focus of attention.
- Your mind will wander. That's fine. When you notice you are thinking or worrying, just shift your focus back to your breathing.
- Some people like to say something to themselves as they breathe in or breathe out like "calm" or "peace."

3. Proceed (with awareness).

Before you end your short pause, refocus on how your body feels.

- Notice your whole body.
- Have any sensations changed?
- Don't worry about what you're thinking or if you're doing this correctly.
- Thank yourself for making time to pause. As you move back into your daily activities, take some of your fresh awareness and your appreciation with you.



Evaluate

Invite participants to reflect on activities to reduce stress or reactions to daily hassles.

Here are some sample questions to choose from.

What did you think about this short mindfulness meditation?

What other meditation, deep breathing, or relaxation techniques have you tried?

What else helps you manage stress? For example, what hobbies or other entertainment do you find relaxing?

Engage

Help participants complete the **Module 4 Review** worksheet to reinforce important terms and concepts.

Invite participants to complete the **My Stress Relief Goal** handout.

MODULE 4 HANDOUTS & WORKSHEETS

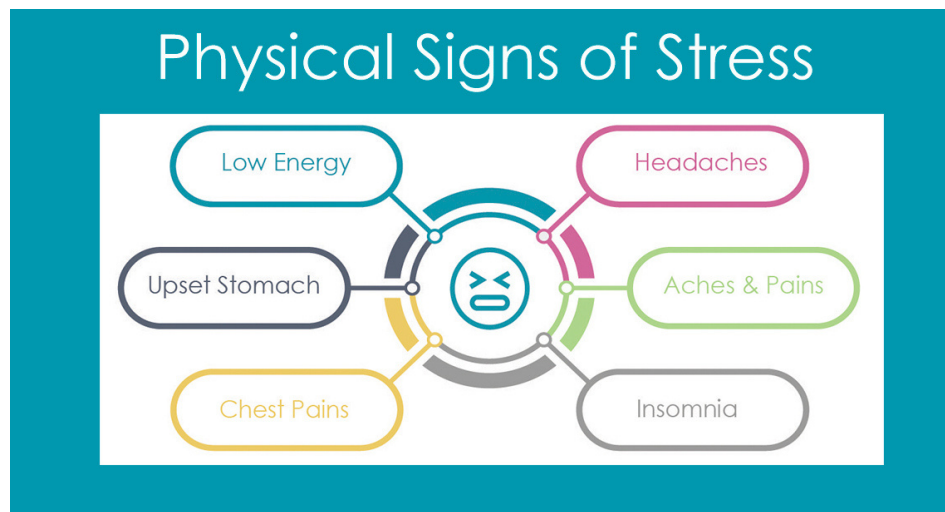


The differences between acute (short-term) and chronic (long-term) stress.

Examples of Acute and Chronic Stress



How stress feels in your body.




What happens from long-term stress?

Long-Term Effects of Stress

Stress has both immediate and long term effects on the body.



While **acute stress** can help protect the body from dangerous stressors, **chronic stress** can have harmful effects on the body.

During the **stress response** the body releases hormones into the bloodstream that cause changes all over the body.



During acute stress, the level of these hormones returns to normal fairly quickly so their effects on the body are short lived.

During chronic stress, the level of these hormones stay elevated for long periods of time and their effects on the body are more long-term and harmful.



Stress relief is possible!

 <p>TAKE BREAKS FROM THE NEWS</p>	 <p>EAT HEALTHY, BALANCED MEALS</p>	 <p>AVOID ALCOHOL AND DRUGS</p>
 <p>MAKE TIME TO UNWIND</p>	 <p>STRESS RELIEF TIPS cdc.gov</p>	 <p>CONNECT WITH OTHERS</p>
 <p>EXERCISE REGULARLY</p>	 <p>GET PLENTY OF SLEEP</p>	 <p>TAKE DEEP BREATHS</p>

Module 4 Review

How short-term stress helps healing from infections or injuries:

How long-term stress delays recovery from infections or injuries:

2 or 3 activities that can reduce stress:

My questions or notes

My Stress Relief Goal

01

Habits or life situations that are causing me stress or hassle:

02

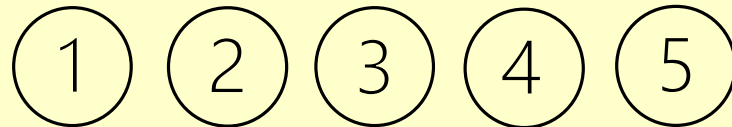
One thing I will change or add to my routine to reduce my stress:

03

Some steps I can take to work on my goal this week:

04

My confidence for making this change or addition, with 1 being not confident and 5 being very confident:



To succeed, choose something specific, manageable, and measurable. This means saying what you'll do, how often/much, where, and why. For example, "I'll take a 20-minute walk outside for 3 evenings this week to release the negative energy from my day. This will help me feel calmer, sleep better, and improve my immune health."

If your confidence is lower than 3, see if you can adjust your goal or steps to be smaller or less frequent to start with.

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Enhancing Your Immune Health

Module 5



**UIC Center on Mental
Health Services
Research and Policy**



**Collaborative
Support Programs of
New Jersey**

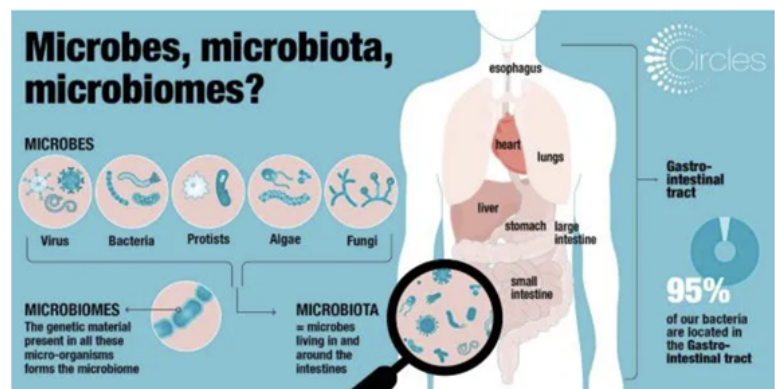
Module 5: Functional Foods, Immunity Aids, & Credible Health Information

Explain

Some of the foods we eat can improve our immune health. To understand how foods do this, you first need to understand how your digestive system works, and the role of a healthy gut in your immunity.

The word gut refers to your gastrointestinal tract, which is the long tube that starts at your mouth and ends at your anus. The lining of your digestive tract is covered in very tiny organisms that can only be seen with a microscope. Most of these are bacteria. Unlike the bacteria that make us ill, these bacteria help digest food and prevent infection and inflammation. In fact, most of our immune cells are housed in our intestines. Gut health also affects our mental health, weight, blood sugar, and liver.

The mix of bacteria in your body is called your microbiota. Each person's microbiota is different from everyone else's. It is determined partly by your birth mother's microbiota and partly from your lifestyle. What you eat, age, stress, medications, and diseases can all increase or decrease the amount and diversity of good and bad bacteria in your gut.



Functional foods

Not surprisingly, what you feed your microbiota may have the biggest impact on its health. And the healthier your gut is, the healthier you are. There are two ways to maintain your gut health.

1. First, you can help the good bacteria or microbes already in your body to grow, by giving them the foods they like, called **prebiotics**.
2. Second is by adding living microbes, called **probiotics**, directly into your system.

Evaluate

Invite participants to reflect on the role of gut health in immunity.

Here are sample questions to choose from.

What have you heard about this concept of healthy bacteria in the gut?

Were you surprised by the ways we can change the mix of good and bad bacteria in our guts?

Have you or anyone you know ever taken supplements to improve gut health?

Explain

Even if you're already taking prebiotics or probiotics, it is helpful to understand how they work in the body.

Prebiotics are high-fiber plant foods that take longer to digest, giving them time to feed the healthy bacteria and other microbes living in your gut. Another way to think about it is that prebiotics are “fertilizers” that support the growth of healthy bacteria in your gut. We need these good bacteria to fight infection and inflammation. Without enough good bacteria in our guts, we are more likely to get sick or stay sick longer.

Prebiotics are found in many fruits and vegetables, including whole grains, apples, bananas, onions, garlic, and artichokes. You can get more examples of prebiotics on the Internet or by talking to a registered dietitian.



Explain

Probiotics contain live organisms, usually specific strains of bacteria, that directly add to the population of healthy microbes in your gut needed to fight infection and inflammation.

You can take probiotics through both food and supplements. Probably the most common probiotic food is yogurt. Yogurt is made by fermenting milk with different bacteria, and keeping those bacteria in the final product. Other bacteria-fermented foods, such as sauerkraut, kombucha (a fermented drink), and kimchi (fermented, pickled vegetables), are also good sources of probiotics. To ensure the fermented foods you choose do contain probiotics, look for the words “naturally fermented” on the label. Also, when you open the jar, look for bubbles in the liquid, which signal that it has live organisms.

Probiotic supplements also contain live organisms. A single dose may include a particular strain of microbe or blend of microbes.

There are a lot of prebiotic and probiotic supplements. You should talk with your medical provider about what is best for you, to avoid buying one that won't help or is more expensive than needed. **It is thought that the most beneficial way to support your immune health using food is by eating a variety of fruits, vegetables, whole grains, nuts, yogurt, safe bacteria-fermented foods, and legumes (beans).**



Evaluate

Invite participants to reflect on prebiotics and probiotics for immunity, using the questions below.

What do you know about the benefits of prebiotics or probiotics?

Have you tried prebiotics or probiotics?

Did anything I shared about prebiotics or probiotics surprise you?

Explain

Many people on TV, the Internet, and social media make claims about various vitamins, supplements, and other remedies that supposedly “boost” your immune health. While some are beneficial, many of these claims are not based on high quality research, and you should be cautious about believing them. Also, many over-the-counter supplements are not regulated by the U.S. Food and Drug Administration (FDA), so their makers do not have the same obligation to support their health claims with good science.

Because the science behind taking supplements for immune health is so new, you’ll want to avoid spending a lot of money on things that aren’t helpful, and may even be harmful. Also, some supplements may interact badly with other medications you take. It’s best to talk with your medical provider about any supplements you want to take to strengthen your immune health.



Explain

Immunity aids

There are several vitamins and other supplements that research shows can improve your immune health. *You should always talk with your medical provider before taking anything new.* Your provider may suggest that you get lab work to determine if you lack certain vitamins.

Vitamin D helps regulate your immune system. Not having enough Vitamin D has been linked to respiratory infections, immune disorders, allergic diseases, and various cancers. Studies show that a very large number of U.S. adults do not have enough Vitamin D, especially people younger than age 5 or older than 65, pregnant and breastfeeding women, people with darker skin, and those with limited exposure to sunshine. Vitamin D can also be too low among those who are very overweight, current smokers, physically inactive, and rarely drink milk. Research suggests that all adults should be screened for Vitamin D deficiency. If you lack it, your medical provider will probably suggest getting outside for more sunshine and taking Vitamin D pills.

Vitamin C can help protect against various deficiencies in your immune system. Some research suggests that higher levels of Vitamin C may indicate a person's overall good health. Vitamin C is in foods like citrus fruit (oranges, lemons), bell peppers, strawberries, broccoli, and brussels sprouts. If you decide to take a Vitamin C pill, it may irritate your stomach, so it's best to take a non-acidic, buffered form.

Vitamin B9 or Folic Acid supports immune health because it aids in the reproduction of cells. Because of its critical importance, folic acid is added to many foods, like cereals and breads, in a process called "fortification." Folic acid deficiency is quite rare, but can occur in people who drink too much alcohol, have disorders that prevent the processing of folic acid, or during pregnancy. If you are worried about your folic acid levels due to alcohol consumption or other reasons, they can be easily checked by a medical provider.

Explain

Immunity aids (continued)

Zinc is an essential mineral to support immune health that the body needs only in extremely small amounts. Some research suggests that zinc itself might be directly harmful to viruses. Many people take zinc in lozenges when they have a head cold. Zinc is most helpful if you have a deficiency, caused by not eating a well-balanced diet or having a chronic disease that limits your body's ability to absorb key vitamins or nutrients.

As a sleep aid, **Melatonin** may strengthen your immune health. Remember, good sleep is a great way to support your immunity. You probably produce enough Melatonin through your diet and lifestyle, but it can be taken as a supplement. Talk with your provider first because it can interact with other medications. It also can be harmful in large quantities. It can be sedating, so don't take it before driving or operating heavy machinery.

Iron plays a critical role in immune function, particularly when you are sick. You can get enough iron from eating a balanced diet. However, iron deficiency, called anemia, is commonly seen in women who are menstruating due to blood loss. It can also occur in vegans or vegetarians, people with poor diets, or those with chronic diseases. Some food sources of iron are red meat, pork, poultry, seafood, beans, dark green leafy vegetables (like spinach), dried fruit (like raisins and apricots), iron-fortified cereal, and peas. Taking too much iron can be harmful, so it should be taken only after discussion with a medical provider.

Explain

In general, the best action you can take to boost your immunity is a healthy lifestyle involving a number of things:

- eat a well-balanced diet with plenty of fruits and vegetables
- manage your stress or daily hassles
- try to get regular, good quality sleep
- get outdoors in the sunshine
- get plenty of physical activity; talk to your provider if you have any medical conditions that might limit your physical activity
- if you smoke, consider talking with your providers or supporters about making a quit plan



Evaluate

Invite participants to reflect on immunity aids using the following questions.

Are you surprised by how few supplements have been proven to help with immune health?

If you have any of the risk factors I mentioned, like age or chronic medical conditions, would you like to talk with your medical provider about getting lab tests to uncover vitamin deficiencies?

Do you take any vitamins or supplements?

Explain

Finding Trustworthy Online Health Information

Many of us worry about trusting health information from the Internet or social media. There are thousands of medical and health web sites, not to mention blog and social media posts. Some provide reliable health information. Many do not. Some of the medical news is current. Some of it is not. Choosing which sources to trust is important when searching for reliable information about immune health.

Let's look at the Module 5 Handout, [Finding Trustworthy Health Information](#). It is adapted from the National Institute on Aging and contains helpful questions to ask yourself.

1. Who sponsors the information?

If someone is making money from the sources or sites you visit, that's a good reason to question the validity of the health information. If the health information is on *non-medical* sites, blogs, or posts, that's another reason to question its reliability and look elsewhere.

2. Who wrote the information?

Ask yourself if the information you're reading is clearly from a doctor, nurse, or other medical expert. If not, then dependable sources will tell you where their health information comes from, such as whether it's from medical experts, virologists, politicians, advocates, commentators, and so forth. Dependable sources also share the unbiased scientific evidence that backs up their claims. Unbiased means that the researchers were not personally invested in the results of the studies one way or the other. You can typically trust scientific evidence from medical experts that is gathered from studies conducted by unbiased researchers.

Be careful! Personal stories, or testimonials, may be comforting or revealing, but they aren't always reliable. Also, not everyone experiences health problems the same way. Finding personal stories isn't really "doing your research," even if you find a lot of similar ones. Also, no information should replace seeing a medical provider about your specific situation.

Explain

Finding Trustworthy Online Health Information (continued)

3. When was the information written?

Look for current sources of health information. Older information isn't always a problem and can be the foundation for new research. But, using information based on the most current scientific evidence is often best.

4. What is the purpose of the source?

Is the purpose of the source to inform you or is it to sell you something? Either way, choose information based on unbiased scientific evidence rather than someone's opinion or intention to sell something.

5. Does the source offer quick and easy solutions to your health problems?

Be careful of sources or companies that claim any one remedy will cure you. Question cures that seem too good to be true. Make sure you can find other unbiased scientific sources with the same information. A key exception to this is vaccinations, which are proven to prevent disease, disability, and death.

Engage

Help participants complete the [Module 5 Review](#) worksheet to reinforce important terms and concepts.

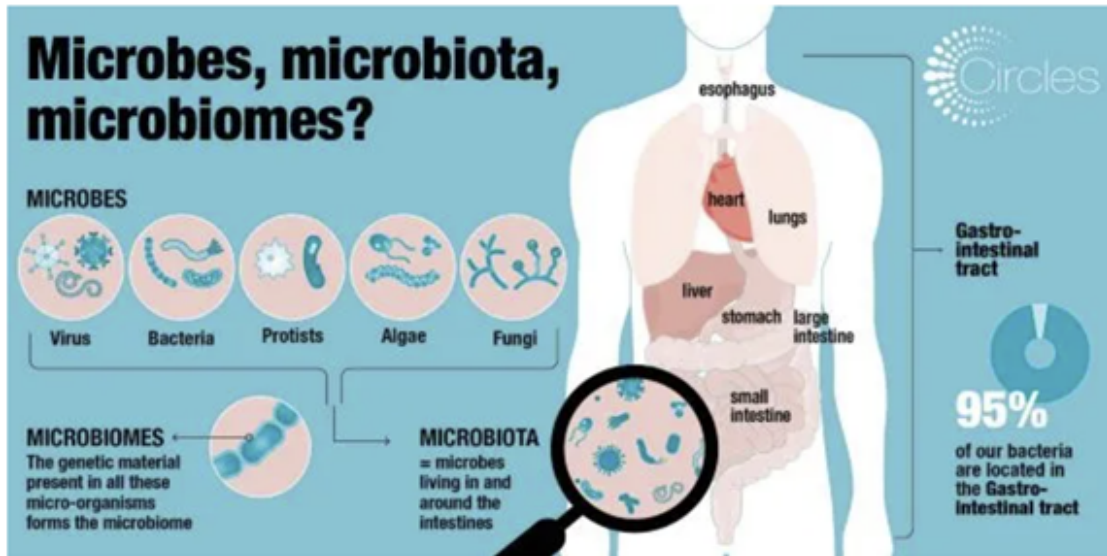
Share the handout, [Vitamins that Support Immune Health](#) (preferably while reviewing the above information).

If you have access to the Internet while meeting, visit 2 or 3 health web sites or social media posts to model asking the [Finding Trustworthy Health Information](#) questions for each one.

MODULE 5 HANDOUTS & WORKSHEETS



Understanding our gastrointestinal tract & gut health.



These foods feed the good bacteria in your gut.



These foods add good bacteria into your gut.



Tips for strong immune health.



Module 5 Review

How the microbiome supports immune health:

This is how prebiotics & probiotics work:

2 ways to tell if health information is based on good science:

My questions or notes

Vitamins that Support Immune Health



Vitamin D

Common sources:
sunlight, salmon,
egg yolks, shrimp

Helps to regulate your
immune system for
proper functioning



Vitamin C

Common sources:
citrus fruit, red bell
peppers, broccoli,
strawberries

Helps protect against
deficiencies in your
immune system



Vitamin B9

Common sources:
added to foods like
breads & cereals

Also called folic acid,
supports immune health
by aiding cell reproduction



Zinc

Common sources:
shellfish, meat,
poultry, nuts,
seeds, eggs

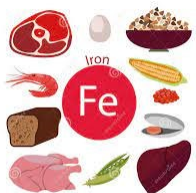
Supports immune
function, growth, &
development



Melatonin

Common sources:
bananas, tart cherries,
tomatoes, grains like
oats, barley, rice

Supports regular sleep
to strength your
immune health



Iron

Common sources:
red meat, pork, poultry,
seafood, beans, dark
green leafy vegetables

Supports proper
immune function,
especially when you are
sick

Finding Trustworthy Health Information

Who sponsors it?

Is someone going to make money from the source, site, or post?
Is the information on a **non-medical** source, site, or post?

If yes, these are good reasons to question the validity of the health information and look elsewhere.

Who wrote it?

Is the information from a doctor, nurse, or other medical expert? If not, that's a strong reason to question its reliability.

Dependable sources state the **rigorous, scientific evidence** for their health information or claims.

Beware! Personal stories alone are not always a reliable source.

When was it written?

Look for current sources of health information, based on rigorous research.

Older information isn't always a problem. However, using the most current, science-based information is often best.

What is the purpose?

Is the purpose of the source to inform you or is it to sell you something?

Either way, choose information based on **unbiased scientific evidence** rather than someone's opinion or intention to sell something.

Is it too good to be true?

Be careful of claims that any one remedy will cure you. Make sure you can find other unbiased scientific sources with the same information.

A key exception is vaccinations, which are proven to prevent disease, disability, & death.

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