

# Musculoskeletal Health

Musculoskeletal disorders (MSDs)—for example things like joint pain, stiffness, back pain—are common, and your risk of developing these is affected by age, occupation, activity level, lifestyle, and family history. Activities such as sitting, repetitive motions, lifting heavy objects, and poor posture can cause wear and tear on your musculoskeletal system, leading to MSDs.

This kit is designed to help you learn about some common MSDs, the signs and symptoms, and how to prevent these disorders or make them more manageable.



**Participate in the following activities to learn more:**

**Activity 1: Try these Guided Back Stretches**

**Activity 2: Back Health Daily Habit Plan\***

**Activity 3: Common Musculoskeletal Disorders and Guessing Game**

**Activity 4: Ergonomic Self-Assessment**

**Activity 5: Prevention Tips and Resources**

**Approximately 1.71 billion people have musculoskeletal conditions worldwide. And musculoskeletal conditions are the leading contributor to disability worldwide.** [\(source\)](#)

**For questions or more information, email [livinghealthy@prevea360.com](mailto:livinghealthy@prevea360.com).**

# Health Disparities

“Health disparities” are preventable differences in health among different social or racial groups. Health Disparities are a complex and challenging problem across the world. Social factors play the largest role in shaping the overall health of communities. For example, the ability to access healthcare, a safe living environment, racial equity, nutritious food, quality education, and supportive relationships free of discrimination is incredibly important to your overall health.

Those who face health disparities often have a higher risk for colorectal cancer. In the U.S., certain racial and ethnic groups experience a higher risk of colorectal cancer and an increased likelihood of being diagnosed when the disease has already advanced to the metastatic stage.

## Did You Know?

- MSD’s are often found in the following job areas: agriculture, aircrew, construction, factory, forestry and fishing, healthcare, retail, and trades. ([source](#)).
- Certain populations may be more affected or face more barriers to receiving care for their MSD’s including costs of care, limited education, and lack of adequate insurance benefits. ([source](#) and [source](#)).

For more information, please visit:

- [The National Institute for Occupation Safety and Health – Ergonomics and Musculoskeletal Disorders](#)
- [National Occupational Research Agenda for Musculoskeletal Health](#)

## Activity 1: Try these Guided Back Stretches

The [Centers for Disease Control \(CDC\)](#) says back symptoms are among the top 10 reasons for medical visits, and for 5-10% of patients, back pain will become chronic. Are you or someone close to you in this statistic? Watch this webinar on Guided Lower Back Stretches to learn the best way to build a stronger back, one that will prevent injuries and keep you active so you can enjoy your favorite activities.

**Watch Now**

## Activity 2: Back Health Daily Habit Plan\*

Take small steps to a healthier back. Start the Back Health Daily Habit Plan in Living Healthy, powered by WebMD\*. With this plan, you’ll take part in simple flexibility and strengthening activities and learn how to maintain a healthy back, while getting tips and tricks along the way. Access Living Healthy through your member portal\*.

**Get Started\***

# Activity 3: Musculoskeletal Disorders

Musculoskeletal Disorders, or MSDs, are injuries or disorders that affect the human body's movement or musculoskeletal system (e.g., muscles, tendons, ligaments, nerves, discs, blood vessels). Common symptoms of MSDs can include stiff joints, recurring pain, swelling, or dull aches.

## Four common musculoskeletal disorders

- [Osteoarthritis](#)

Osteoarthritis (OA) is a common chronic joint disorder also known as Degenerative Joint Disease (DJD). With OA, the cartilage that covers the ends of the bones breaks down, causing the bones within the joint to rub together. The areas affected most include the hands, fingers, shoulder, neck, lower back, knees, and hips. Common symptoms include stiffness (usually worse in the mornings or after inactivity), noisy joints, loss of flexibility, and range of motion. Some of the risk factors that increase your chances of developing OA include having a family member with the condition (particularly parents), gender (women have higher rates than men), age (being at least 50 years old), poor posture, an occupation that involves kneeling, climbing and heavy lifting.

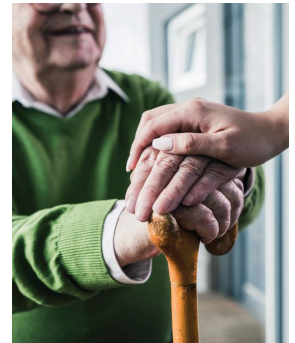


- [Tendinitis](#)

Tendons connect muscles to bones and when they become irritated or inflamed, this results in tendinitis and causes acute pain and tenderness which makes it difficult to move the affected joint. Tendinitis can develop in any tendon but is more likely in the shoulder, knee, elbow, or wrist. The most common cause of tendinitis is a repetitive action and may develop if you frequently make the same motion while playing sports or working in an occupation that requires repetitive movements.

- [Carpal Tunnel Syndrome](#)

The carpal tunnel is a narrow canal in the wrist. Carpal tunnel syndrome happens when there is increased pressure on the median nerve on the palm side of the hand. This can happen in one or both hands and symptoms may include pain, numbness, weakness, and tingling. Wrist anatomy, underlying health conditions (diabetes, high blood pressure, thyroid dysfunction), and patterns of hand use can contribute to carpal tunnel syndrome. Repeated motion of your wrist contributes to swelling and compression of the median nerve which may be a result of the position of your wrists or repeated movement such as typing or playing the piano. Lifestyle changes, like rest, wrist splints, changes to your environment, and surgery are possible treatments.

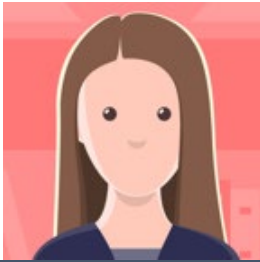


- [Rheumatoid Arthritis](#)

Rheumatoid arthritis (RA) is a chronic inflammatory disorder that can affect more than just your joints. In some people, the condition can damage a wide variety of body systems, including the skin, eyes, lungs, heart, and blood vessels. An autoimmune disorder, rheumatoid arthritis occurs when your immune system mistakenly attacks your own body's tissues. Unlike the wear-and-tear damage of osteoarthritis, rheumatoid arthritis affects the lining of your joints, causing a painful swelling that can eventually result in bone erosion and joint deformity. Specific causes of RA are unknown, but age (onset is highest among adults in 50), gender (higher in females), genetics, smoking, and obesity are all factors that may increase the risk of developing RA.

# Activity 3 (continued): Guessing Game

Read through the four patient scenarios and try to fill in the blank with the name of a Musculoskeletal Disorder (MSD) the patient might be experiencing.



## Patient 1:

Jane is an administrative assistant in an office setting. As part of her job, she does a lot of typing and data entry. She has been experiencing numbness and tingling on the sides of both of her hands near the thumb.

This could be a sign of \_\_\_\_\_.

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## Patient 2:

Joe works at a manufacturing facility as a warehouse worker. As part of his job, he maintains inventory and ensures parts are stocked in the warehouse. He has been in this occupation for 20 years and has recently been experiencing a dull ache and increased pain in his shoulder and finds it difficult to move his shoulder when reaching overhead when stocking the inventory parts.

This could be a sign of \_\_\_\_\_.

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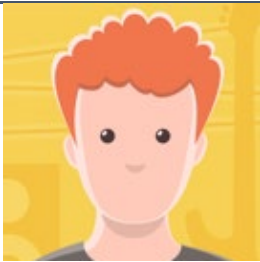


## Patient 3:

Mary is 51 and loves to garden. Kneeling and bending down to weed is becoming harder for her. She has recently been experiencing some aching pain, stiffness (worse in the morning), and a snapping noise in her right knee. Kneeling has not been a problem for her until now. Her mother experienced these same symptoms in her knees when she got older.

This could be a sign of \_\_\_\_\_.

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## Patient 4:

Tom is 35 years old. Over the last three months, he has been experiencing pain, swelling, redness of his knuckles on both hands, and worsening fatigue.

This could be a sign of \_\_\_\_\_.

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If you are experiencing any of the same symptoms as the patients in the above scenarios, don't wait! Make an appointment with your primary care provider. You may also receive a referral to an orthopedic specialist. Treatment works best if these conditions are diagnosed early. Many times, your pain can be treated successfully with more conservative treatments, such as medication and therapy, rather than surgery.

In addition, check out some of the [prevention strategies and resources](#) to prevent MSDs from developing or help make them more manageable.

# Activity 4: Ergonomic Self-Assessment

Use this guide to perform a self-assessment of your workstation. If you require additional support in some areas, try equipment such as a monitor/laptop riser, footrest, backrest, or external keyboard/mouse.

## Neutral Posture:

To achieve a neutral working posture, evaluate and readjust these seven areas, as needed:

- ☐ **Head/Neck** in line with the torso, facing forward; chin parallel to the ground.
- ☐ **Shoulders** relaxed (not raised or lowered).
- ☐ **Elbows** and upper arm tucked into sides, below the shoulder. Elbows bent at about 90 degrees.
- ☐ **Forearms/Wrists** parallel to the ground; wrists aligned with forearms.
- ☐ **Back** fully supported by backrest; slightly reclined, between 95-115 degrees.
- ☐ **Thighs/Knees** parallel to the floor; knees bent at about 90 degrees.
- ☐ **Feet** firmly planted on the ground (or a footrest).

## Tip: Take regular eye and posture breaks!

- Remember to move. Get out of your chair at least once every hour.
- Follow the 20/20/20 rule. Every 20 minutes, look at something 20 feet away, for 20 seconds.

## Your chair should:

- Allow your feet to be on the ground with your thighs parallel to the floor. (Use a footrest, if needed.)
- Support your lower back. (Use an attachable and adjustable backrest, if needed.)
- Fit your thigh (in length) with about 1 ½ inches between the chair and the back of your knee.

## The keyboard should:

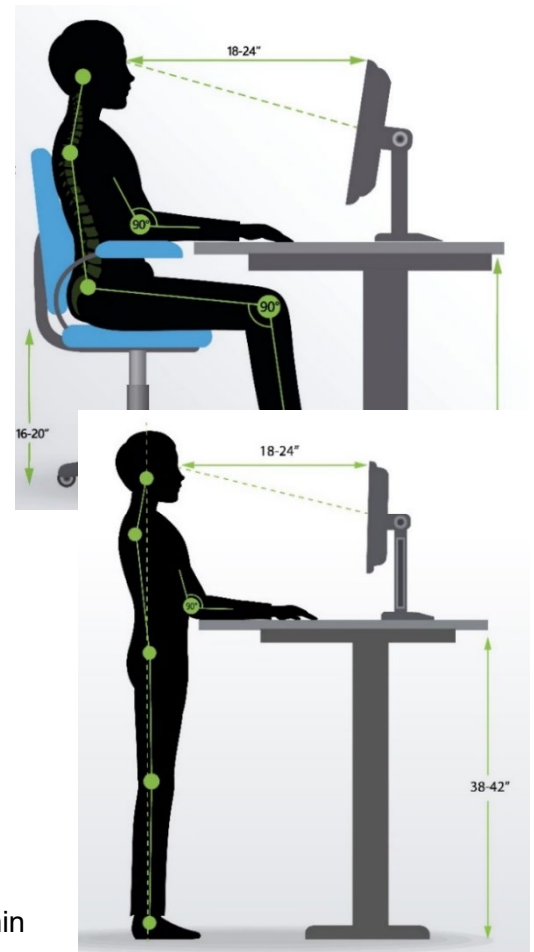
- Be directly in front of your body with your shoulders relaxed and elbows bent (about 90 degrees), close to the body. (Adjust your chair height or use an under-desk keyboard tray, if needed.)
- Have zero tilt. Don't use the keyboard extender legs/kickstands.
- Allow wrists to be in line with your forearms, not bent up/down or sideways.

## The mouse should:

- Be in front of your shoulder, at the same height as your keyboard.
- Allow wrists to be in line with your forearms, not bent up/down or sideways.

## The monitor should be:

- At or slightly below your eye level (top of the screen), with your chin parallel to the floor. (Use a monitor stand/riser, if needed.)
- About one arm's length away from your body.
- Centered in front of your body. With multiple monitors, the one used most (70% or more) should be centered; if used equally, both should be centered in a semi-circle.
- Tilted upwards, about 15 degrees.





# Activity 5: Prevention Tips and Resources

*Programs are open to all, regardless of insurance.*

These resources and strategies can help prevent and reduce the impact of common musculoskeletal disorders, so you can keep enjoying and doing the things you love.

## **Maintain your physical fitness:**

Exercise and stretch regularly to keep bones, joints, and muscles strong. Visit [Prevea360.com/wellness](https://Prevea360.com/wellness) for free resources and programs to help you with physical fitness.

- Our [video library](#) contains a variety of webinars (all listed under *Physical*):
  - [Guided Beginners Yoga](#)
  - [Guided Desk Stretches](#)
  - [Kickstart Your Cardio](#)
- Set a [REAL Goal](#):
  - [Increase Movement](#)
  - [Strength Training](#)
  - [Improve Sleep](#)
- Check out these Supplemental resources under the Physical Real Goal:
  - [Chair Exercises](#)
  - [Stretching](#)

## **Safety Measures:**

Minimize repetitive motions, lift heavy objects carefully, and maintain good posture to prevent back pain.

## **Maintain a Healthy Lifestyle:**

Stay hydrated by drinking plenty of water, eat healthy foods, get enough rest and sleep, reduce sugar and fat intake to keep inflammation down, take breaks, and get up and moving.