Minimizing stress on the joints
Your guide to a healthy back, neck, knees and hips
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Who this guide is for

At Northern Westchester Hospital, we believe in being proactive about joint health – which means living a healthy, active lifestyle to stop minor aches and pains before they begin. In this guide, we’ll show you how to do just that, as well as how to ease minor discomfort in the back, neck, knees and hips.
If you’re experiencing the following, you may benefit from the tips we provide on the next few pages:

– Minor discomfort getting into and out of bed
– Stiff joints after long drives
– Stiff back or neck after long periods of sitting
– Decreased range of motion and flexibility
– General back and joint pain, aches and tightness

However, this guide is not intended to diagnose or treat serious pain. If you are experiencing any of the following, please see a doctor immediately:

– Acute or recurrent injuries
– Sharp, disabling pains
– Chronic, burning aches in your joints
– Pain that prevents, or interferes with, your everyday activities
– Loss of sleep due to chronic aches or pains

It’s better to be safe than sorry, so if you’re unsure whether or not your pain warrants a doctor’s visit, we recommend that you stay on the side of caution and make an appointment with your physician.

For an Orthopedic Physician Referral call (914) 222-0206.
Understanding minor aches and pains

Pain is nature’s way of saying something’s wrong. It’s a warning signal to stop what you’re doing, rest and recover. When you feel minor pain or discomfort in your joints, neck or back, it could mean that you’ve been overusing them or using them improperly. It can also mean that you aren’t active enough and, as a result, everyday activities feel like a strain.

Everything you do can affect your joints later in life. Some contributing factors to poor joint health include:

– Bad posture
– Lack of exercise and prolonged sitting
– Prolonged standing
– Improper setup of your workstation (the efficiency of your working environment is known as “ergonomics”)
– Overusing or injuring your joints (often while playing sports)

Being proactive about these things can positively affect your everyday life by improving your capabilities and, as a result, boosting your confidence. Maintaining your neck, back and joint wellness means you’ll be able to do things that you may otherwise avoid because of pain and stiffness, like gardening, hiking or playing with your children and grandchildren.
Preventing pain and injury

Once you understand the causes of pain, preventing it can seem like a tough balance to strike. For example, many office workers have taken to using standing desks to relieve their back pain, only to find out that standing all day is hard on the knees. So if prolonged sitting and prolonged standing are both harmful, what should you do?

Most orthopedists agree that being in any one position for too long can put strain on your joints, neck and back, so it’s important to keep moving throughout the day. If you have an office job, for example, try taking a walk at lunch and getting up a few times per day to stretch. If you have an active job that keeps you on your feet, make sure to stretch and rest on your breaks or whenever possible.
More than 80 percent of adults will experience significant back or neck pain at some point during their lives. For those who live an active lifestyle, the hips and knees are some of the most commonly injured joints.

The following are some everyday tips from our orthopedists on keeping your back, neck, knees and hips healthy and pain-free.

**Tips for back and neck wellness**

**Lifting heavy loads**
1. Don’t be a hero. Share the load.
2. Use your legs to lift, not your back.
3. Avoid twisting. Turn your whole body with the weight.
4. Pushing is preferable to pulling.
5. Keep the weight close to your body and distribute it evenly.

**Posture and activity**
1. When sitting, keep your buttocks against the back of the seat and keep your feet flat on the ground.
2. When sitting for prolonged periods, periodically change your position and take breaks to stretch.
3. Bend at the knees. Should you have to bend over for anything, hinge at the hips and brace your core to protect your back.

**Hydration and exercising**
1. Drink plenty of water. Staying hydrated keeps us fluid rather than stiff.
2. Stay active. Exercise and activity keeps the muscles of the spine (e.g., the abdominals) strong.

**Tips for hip and knee wellness**

**Everyday living**
1. If you’re overweight, shedding even a few extra pounds can take tremendous stress off your knees.
2. Wear proper shoes. Opt for supportive, comfortable shoes over high heels and other uncomfortable styles.
3. Get plenty of sleep. Your body needs to rest and recharge.
4. Eat a balanced diet. Vitamin C helps with the formation of collagen, which helps cushion and lubricate your bones.

Calcium is vital to bone health and preventing fractures.

**When playing sports**
1. Warm up, cool down and stretch properly. This helps prevent common injuries like ACL tears.
2. Prioritize rest. Take a day in between major games, practices and workouts to let your body recover.
3. Vary your movements. For example, runners benefit from strength training to keep their knees and other joints strong.
Personal ergonomics

Ergonomics is the study of the efficiency of our working environments. However, the term is now often applied to other areas we spend a lot of our time in, such as our cars and our beds. Having good personal ergonomics means having a proper setup and good posture to ensure you protect your back, neck and joints.

Whether you’re working, driving or watching television, it’s important to change your position every 40 minutes or so — regardless of whether you’re sitting or standing. Remember that your environment should be conformed to you, rather than the other way around. Compensating for a poorly structured work environment, whether it’s a computer monitor that’s too low or a desk that’s too high, can cause continual stress on your joints, back and neck and cause deterioration and pain over time.
The following are some ergonomics tips to help you stay comfortable and pain-free throughout the day:

**Sitting and driving**

**At a desk:**
- Align your spine by keeping your buttocks against the back of the seat.
- Use ergonomic chairs and lumbar rolls to keep your spine supported.
- Keep your feet flat and supported.

**Computer/office setup:**
- Your computer monitor should be centered, not caddy cornered or off to the side. The top of the screen should be slightly below eye level.
- Keep frequently used items, such as the mouse and keyboard, in easy reach.
- Do not wear bifocal or progressive glasses.
- Use a headset if you are on the phone for more than 40 percent of the day.

**In the car:**
- Adjust your seat so that you don’t have to reach for either the steering wheel or pedals.
- On long drives, stop periodically to get out of the car, stretch and move around.

**Sleeping**
- Choose a mattress and pillow that provide support. Your mattress should be firm so that you don’t sink into it.
- When lying on your back, keep your knees slightly bent with a pillow underneath them for support.
- When on your side, avoid the fetal position. Use a pillow between your knees to maintain good pelvic and lumbar alignment.
Standing
- Bring your work and your desk up to you. Do not bend or look down for prolonged periods of time.
- Maintain a wide base of support by keeping your feet shoulder-width apart.
- Alternate positions. Keep one foot on an elevated surface, then switch legs.
- Sit when available to break up the stress and alternate posture.
- Wear supportive and cushioned footwear to decrease the stresses of prolonged standing.

Pushing, pulling and carrying
- Use something to assist you, such as a cart, whenever possible.
- Use the strength in your legs to move you forward or backward. Do not push, pull or carry with your back.
- Maintain the natural curves of your spine at all times. Avoid rounding or hyperextending your back.

Proper lifting and bending
- Bring or slide the object close to your body before lifting.
- Keep your abdominals tight and maintain the natural curve in your back.
- Use your legs to lift by pushing the floor away from you. Never lift with your back!
- Keep your shoulders and hips squared to your target.

Activities around the house
- Always maintain a safe, clean work area.
- Whether you’re cleaning or gardening, use the right tool for the job.
- Seek out ergonomically designed equipment (e.g., a curved snow shovel).
- Alternate and change positions regularly.
- Rest regularly, especially when bending repeatedly.
Stretches and exercises for everyday wellness

The following stretches and exercises are often effective for relieving and preventing minor aches and pains from everyday activities. They can also strengthen your muscles and joints, as well as prepare your body for strenuous activity. As with all exercises, do not hold your breath and make sure you are utilizing good posture and form. All stretches should be static and you should never bounce or push into a stretch so it evokes pain.

As always, consult with your doctor before starting an exercise routine. If you feel any pain while stretching or exercising, stop immediately and consult an orthopedists.
Lower back
Start by holding each of these stretches for 10-20 seconds and repeat five times:

– Abdominal stability
  While lying flat on your back, draw in your belly button while tightening up all of your abdominal muscles. Do not hold your breath. Hold for five to 10 seconds.

– Supine hamstring stretch
  While lying flat on your back, keep one leg bent and support the other leg behind the knee with your hands. Keep your hip at approximately a 90 degree angle. Slowly begin to straighten your leg as far as you can.

– Piriformis stretch
  While lying flat on your back, bend one knee up and bring the other knee to your chest. Cross your legs allowing your ankle to rest on your thigh and with your opposite arm, gently pull your knee to the opposite shoulder.

– Single-leg trunk rotation stretch
  While lying flat on your back, with your feet flat on the floor, slowly rock your knees from side to side in a small, pain-free range of motion. Allow the lower back to rotate slightly. Hold for three to five seconds.
Neck
– Cervical spine stretches
While seated, sit on the hand of one arm and with the opposite arm, gently pull the opposite side of the back of your head on a downward angle. Next, with the same arm, hold the opposite side of your head gently pulling your ear to your shoulder. Hold each stretch for 10-20 seconds and repeat five times.

– Chin tucks
While sitting upright, place your fingers on your chin, tuck in your chin and gently draw the base of your skull back. Hold for three to five seconds and repeat 10 times.

– Isometric strengthening exercises are performed by pressing your hands to certain places on your head and gently pushing against them, holding the resisted pressure for three to five seconds.

Repeat these exercises 10 times for each of the following positions:
• Static flexion – hands are placed on the forehead.
• Static extension – hands are placed on the lower back of the head.
• Isometric lateral flexion – the hand is placed on the side of the head, right above the ear. Repeat on both sides.
• Isometric lateral flexion 2 – the hand is placed on the lower part of the head so that it is near the chin. Repeat on both sides.
Hips and knees
The following stretches and exercises are designed to stretch and strengthen both the hips and the knees.

Perform the following exercises slowly and with good form on each side for three sets of 10 repetitions:

– **Supine hip flexion (straight leg raise)**
  While lying down on your back, bend one knee and rest the foot flat on the floor. Keeping your other leg locked out straight with your toes pointed to the ceiling, lift it to the height of the opposite knee and slowly back down.

– **Side-lying hip abduction**
  While lying on one side, bring your bottom leg back to a 90 degree angle. Keep the top leg locked out straight and your toes pointing out to the side you are facing. Raise the top leg up and back down slowly. Your leg should be in line with your body and shoulder. Do not let it come in front of your body.

– **Side-lying hip adduction**
  While lying on one side, bring your top leg over your bottom one and rest your foot on the floor in front of the bottom thigh. Tighten your bottom thigh and raise the bottom leg a few inches off the floor, then lower it back down slowly.
– **Prone hip extension**
   Lying face-down on your stomach, raise one leg eight to 10 inches off the floor or table, keeping the leg locked out straight and toes pointing straight down to the floor. To protect your back, it is recommended that you place a pillow underneath your abdomen.

– **Heel slides**
   Sit on the floor with your back against a wall or stable surface. Place a towel or strap around your mid-foot or heel. Push your other heel into the floor and tighten the same leg’s hamstring muscles while assisting your other knee into flexion by pulling the towel toward your body. Hold in flexion for five seconds and release for each rep.

– **Supine isometric adductor squeeze**
   While lying back and resting on your elbows, squeeze a pillow or ball between your knees. Hold five seconds and then release for each rep.
What if my pain persists or worsens?
If your pain worsens or doesn’t improve, it’s time to see a doctor. You can contact (914) 222-0206.

Want to learn more about our orthopedic programs and services? Visit us at nwhorthoandspine.org.

You can also learn about our physical therapy and rehabilitation services at nwhrehab.org.
About Northern Westchester Hospital:
Northern Westchester Hospital (NWH), a member of Northwell Health, provides quality, patient-centered care that is close to home through a unique combination of medical expertise, leading-edge technology, and a commitment to humanity. Over 650 highly-skilled physicians, state-of-the-art technology and professional staff of caregivers are all in place to ensure that you and your family receive treatment in a caring, respectful and nurturing environment. NWH has established extensive internal quality measurements that surpass the standards defined by the Centers for Medicare & Medicaid Services (CMS) and the Hospital Quality Alliance (HQA) National Hospital Quality Measures. Our high-quality standards help to ensure that the treatment you receive at NWH is among the best in the nation. For more information, please visit www.nwhc.net and connect with us on Facebook.

About Northwell Health:
Northwell Health is New York State’s largest health care provider and private employer, with 23 hospitals, more than 650 outpatient facilities and nearly 15,000 affiliated physicians. We care for over two million people annually in the New York metro area and beyond, thanks to philanthropic support from our communities. Our 66,000 employees – 15,000-plus nurses and 4,000 employed doctors, including members of Northwell Health Physician Partners – are working to change health care for the better. We’re making breakthroughs in medicine at the Feinstein Institute for Medical Research. We’re training the next generation of medical professionals at the visionary Donald and Barbara Zucker School of Medicine at Hofstra/Northwell and the Hofstra Northwell School of Graduate Nursing and Physician Assistant Studies. For information on our more than 100 medical specialties, visit Northwell.edu.