



Pregnancy and Ergonomics

Overview

Please talk to your healthcare provider about what level of physical activity and work duties are appropriate for you. Although we know that risks are elevated with some activities, generally, there are no set limits for physical activity during pregnancy as each person is different and what is safe for you will be influenced by your normal physical activity, your health, and, stage of pregnancy.

The information below is meant to support you and your Manager in thinking about the ergonomic risks in your workplace during pregnancy. Please refer to the references at the end of this document for more information.

Computer-based work

The same general office ergonomic principles apply to you during pregnancy. However, there are some items that merit additional attention. For example, [carpal tunnel syndrome](#), a condition where the median nerve is compressed resulting in pain, numbness, tingling and possibly loss of strength in the hand, is more common during pregnancy; possibly due to hormonal changes or increased fluid retention. The good news is that for many, symptoms will subside post pregnancy. Nonetheless, it can be helpful to take extra care during pregnancy. Additionally, many people experience back pain during pregnancy—please see sitting and standing tips below for more guidance on that.

What You Can Do:

- Ensure that your keyboard and mouse are just below elbow level
- Check that the edge of your desk is not digging into your wrists. If you are using a gel palm rest, rest your palm (not your wrists) and avoid having any pressure under your wrists.
- Try to keep your wrists fairly straight as you type and mouse.
- Follow the [same general ergonomic principles](#), such as having your feet and back supported, keyboard & mouse below elbow level and the top line of text is at eye level.
- [Ergo workshops](#) are available online
- Take micro-breaks throughout the day
- Follow-up with your healthcare provider if symptoms develop



Standing

Physiological changes during pregnancy (e.g. increased blood and systolic volume, dilatation of blood vessels, possible venous compression, increased fatigue and low back) can make standing in one spot (static standing) more tiring or uncomfortable than pre-pregnancy. Prolonged static standing may increase risks for some adverse birth outcomes ([CDC](#)).

What You Can Do:

- When possible, alternate between sitting and standing and minimize prolonged static standing.
- If your job normally involves prolonged static standing, talk to your Manager to determine if arrangements can be made to provide suitable seating in your workspace.
- When standing, wear comfortable and supportive shoes and try to weight shift or move around—movement helps your veins return blood to your heart.

Sitting

Pregnancy-specific changes in the coagulation factors (proteins in the blood that help to control bleeding) and mechanical compression of the pelvic veins can increase the risk of thrombosis and increased swelling in the feet associated with prolonged sitting ([Commission of European Communities](#)). If your job involves primarily seated work, make a conscious effort of periodically getting up and moving around.

What You Can Do:

- Positional change and light movement help to keep blood moving. Even if you don't have a height adjustable desk, try to get up regularly throughout the day.
- When sitting, make sure that your feet are well supported. If your chair is too high, you may need a footrest.
- If sitting for a prolonged period, check that your chair has good back support. Adjust the lumbar support to fit the small of your back. Adjust the backrest angle to a comfortable position and use your backrest—let it support you which will let your back muscles rest.

Lifting, bending and physically demanding work

During pregnancy, performing physical demanding work such as heavy lifting and frequent bending can increase your risk of injury. Changes to your balance, posture, ligaments and joints in the spine may increase your risk of injury when lifting heavy items. Additionally, as your baby grows, your center of gravity shifts forward and it becomes harder to hold object close to your body—this can result in more pressure on the discs in your spine. Heavy lifting and frequent bending may increase risks for some adverse birth outcomes ([CDC](#)).



What You Can Do:

- Talk to your Doctor. Normal everyday physical activities and moderate exercise with your Doctor's approval may be fine.
- Try to avoid heavy lifting (>25lbs), pushing, pulling or carrying, or, lifting more than once every 5 minutes, particularly if lifting from the ground. Lifting from the ground is much harder and more tiring than lifting at waist level.
- See the [CDC Provisional Recommended Weight Limits for Lifting at Working During Pregnancy](#)
- Try to avoid bending at the waist more than 20 times per day ([CDC](#)).
- When lifting, use good technique, keep a wide stance, and bend your knees
- Keep the items as close to you as possible, and, try to store items at waist level.
- If your work is physically demanding or involves heavy work, talk to your Manager to determine what options are available to you.

Overhead Work

During pregnancy, there is an increased risk of developing [thoracic outlet syndrome](#) (TOS), compression of the nerves and blood vessels between your collarbone and first rib. This may be due to increased pressure in these areas or looser joints. Symptoms include weakness in your arm, shooting pain or numbness and tingling and may be aggravated by poor posture (drooped shoulders and head forward), lifting or carrying heavy items, or, raising your arms above shoulder level.

What You Can Do:

- Be mindful of your posture. Try to stand with good posture and try to avoid rounding your shoulders or poking your chin forward.
- Minimize carrying heavy bags over your shoulder
- Minimize lifting or reaching overhead
- Avoid or minimize working on ladders ([Commission of European Communities](#))
- Minimize performing repetitive movements
- Follow-up with your healthcare provider if you are experiencing symptoms or if you have concerns

Working Hours

During pregnancy, you may find that working long hours, overtime or night shift is harder than pre-pregnancy. This may be due, in part, to the increased need for more sleep, particularly in the first and third trimester. Additionally, [2019 systematic review](#) found an increased risk of adverse pregnancy outcomes when working rotating shifts, fixed night shifts or longer hours.



The [Commission of European Communities](#) outlined that working long hours, shift work and night shift can have a significant effect on the health during pregnancy.

What You Can Do:

- Make a plan and prioritize sleep when you can. This is generally true for all shift workers as a lack of sleep is associated with a range of health concerns. Although you may feel that you don't want to miss out on family or social activities, it is important, especially during pregnancy, to prioritize getting sufficient sleep.
- Set your bedroom up to facilitate sleep, e.g. blackout curtains, white noise, ear plugs, turning off your ringer, blocking light sources from the power cords, asking family and friends to keep the noise down as much as possible
- [Shiftwork & Fatigue webinar](#) available online
- Talk to your healthcare provider if you have questions or concerns.

Vibration and Shock Waves

Frequent or prolonged exposure to vibration and shock waves from tools such as jack hammers, chisels, driving a bobcat over rough terrain can cause painful damage to the hands and fingers, and contribute to severe back pain ([WSBC](#)). The specific impacts of exposure to vibration during pregnancy are still being studied. However, generally, it is thought that exposure to high levels of whole-body vibration such as driving in rough, off-road conditions, can have an adverse effect on the baby (Skroder et al, 2021). Additionally, back pain and carpal tunnel syndrome are already more common during pregnancy and exposure to frequent, prolonged or high levels of vibration can also increase the risk of such injuries.

What You Can Do:

- Minimize exposure to vibration
- If you are exposed to vibration, talk to your healthcare provider to determine what would be best for you and talk to your Manager to determine what options are available to you.

Heat

Exposure to extreme heat can result in heat-related illness such as heat stroke and heat exhaustion and dehydration ([WSBC Heat Stress](#)). During pregnancy, your body needs to work harder to cool both you and your unborn baby and this harder while pregnant because you are more likely to become dehydrated which means that you won't be able to cool yourself as well by sweating. Pregnant people are more likely to get heat exhaustion or heat stroke sooner than a nonpregnant worker ([CDC Heat](#)).



What You Can Do If You Working Outside:

- Refer to [NIOSH](#) and [WSBC](#) for control measures for heat stress.
- Follow-up with your healthcare provider to discuss your work environment and exposure to heat stress. It may be prudent to err on the side of caution if exposed to hot environments.

Noise

Working in loud environments can damage the nerve endings in the inner ear and possibly dead nerve endings. During pregnancy, the protective gear that you wear does not protect your baby's health and thus additional care may be needed.

What You Can Do:

- Follow normal precautions from [NIOSH](#). To protect the baby's health, talk to your Healthcare Provider and try to limit your exposure to noise louder than [115 dBA](#). This is roughly as loud as operating a chainsaw.
- Talk to your Manager if you work in a noisy environment to determine what options are available in the workplace.

Additional resources.

- [UBC's ergonomics program](#). Find additional ergo resources or request an assessment.
- [UBC's Occupational & Preventive Health](#). (OPH) Find additional resources about biological or chemical exposures in the workplace or book a confidential appointment with a nurse.
- UBC's Pregnancy & Preparation. Find additional resources from benefits to maternity/paternity leaves.



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