



Canadian Women's
Health Network

Le Réseau canadien pour
la santé des femmes

Preventing work-related injuries: Standing on the job

Who is standing on the job?

Standing is part of the job for many women in Canada. Being on your feet most of the day is a familiar story for cashiers, bank tellers, restaurant servers, mail sorters, assembly line workers, health care workers and retail salespeople.

What problems do women face when they stand all day?

The effects of standing all day can show up almost right away. Prolonged standing and walking causes or makes worse health problems and soft tissue injuries including:

- swollen or painful feet or legs;
- bunions;
- plantar fasciitis (inflamed connective tissue that goes from heel to toe, supporting the arch);
- stretched Achilles tendon (tendinitis);
- varicose veins;
- knee problems;
- low back pain;
- neck and shoulder stiffness;
- poor posture (and its effects);
- restricted blood flow;
- increased chance of knee or hip arthritis; and
- muscle soreness and fatigue.

Recent studies also show regular standing may:

- increase the risk for atherosclerosis (hardening of the heart arteries) in men; since women weren't included in the studies, it's unclear if they may be affected differently; and
- cause pre-term delivery and lead to reduced birth weights, if the pregnant woman stands for more than three hours at a time.

What causes these problems?

Like many work-related hazards, standing usually is designed into a job. The physical layout or work practices of a task may force women into awkward positions to reach across wide surfaces or do things repetitively without breaks. Standing is worse when you can't move around much, or when you work on hard surfaces and/or wear unsuitable footwear.

Muscles work to hold you upright. After a woman is standing in one position or walking for a while, her muscles need a rest. Otherwise, joints from the neck to the feet can become temporarily "stuck." When this happens regularly, muscles get tired and their tendons and ligaments can be damaged, causing soft tissue injuries.

Standing still also reduces blood flow to muscles and stops the "muscle pump" (regular muscle movements) that returns blood from the feet and legs to the heart. Other body fluids won't move unless leg muscles contract. When blood or other fluids don't move properly, veins get inflamed and/or feet, ankles and legs swell and muscles start to ache. This is a particular problem for pregnant women. They may also get less blood to the uterus when there is less blood returning to the heart in the leg veins.

Where do our feet and shoes fit in?

Our feet are essential for standing. The arches of our feet are shock absorbers. When these absorbers stop working (from overuse, poor position or flat feet), joints in our legs and backbone have to deal with the impacts of standing, walking, running or jumping.

Tissues related to those joints then can become inflamed, tired or more vulnerable to injury. Therefore, footwear is important. Women are expected to wear "heels" in many jobs. But heels more than 5 cm (2 inches) high can force the body

forward and the buttocks back. To keep their balance, women have to tense up and lean slightly back. This can cause shortened calf muscles, knee and back problems and increased chances of falling.

How can these problems be prevented?

By law, employers must provide healthy and safe work for everyone in their workplace. They are in the best position to make necessary changes to prevent injuries. But sometimes individual workers and/or their unions must argue for preventive ergonomic solutions. These include:

- working with individuals and unions to investigate jobs for standing problems;
- fully-adjustable work surfaces, equipment and work stations which:
 - have different heights depending on whether work is precise, light or heavy;
 - keep things within easy reach;
 - allow workers to face the task (to avoid awkward postures);
 - can be adjusted for pregnant workers' needs;
 - give space to move and sit comfortably (eg. room for knees);
 - have foot clearance so standing workers are in a balanced position; and
 - include something on which to rest one foot when standing.
- accessible fully-adjustable chairs and/or sit-stand stools (common practice outside North America);
- when providing protective foot gear, ensure the choices fit women;
- opportunities to sit and move about during the working day and to take breaks;
- enough seating for all workers in rest areas and lunch rooms;
- wooden, cork or rubber covered floors; and
- anti-fatigue mats (not foam or too spongy, with beveled edges for safety and cleaning).

For the rising number of women who are self-employed, the responsibility rests on the women themselves to set up their working environment to avoid work-related injuries.

What can individuals do to prevent standing-related injuries?

Things you can do on your own include:

- Push for and participate in workplace re-design efforts.
- See if others have similar problems: use body or workplace maps, surveys or just ask around.
- Report health problems to your employer, union and the compensation board.
- Try to re-arrange your work area as suggested above.
- Sit and move as much as possible.
- Stand with one foot in front of the other, not side by side.
- Periodically shift your weight from one leg to the other.
- Work with one foot slightly raised (a six-inch/15 cm footstool is ideal).
- If you're pregnant, try to put your feet up at work and rest with your feet higher than your head.
- Wear shoes that:
 - are sturdy, low-heeled (less than 5 cm), supportive and comfortable;
 - do not change the shape of your foot; and
 - have room for insoles to cushion the shock of walking or orthotics.
- Have two pairs of work shoes so one can dry out for 24 hours.
- Wear cotton or wool socks to let your feet breathe; avoid nylons that constrict toes.
- Consider healthy weight reduction, if need be (less weight reduces stress on the joints affected by standing)