

Solutions for preventing knee injuries



Can you plan your job so equipment is available to use, such as a power stretcher to lay carpet instead of a knee kicker?



Ergonomics is adjusting the work to fit the worker. Raising the work off the ground, for example, will help you maintain the health of your knees by limiting kneeling, squatting, and contact stress.



Can you add an extension on your tool so you can work at waist height instead of kneeling?



If you do have to kneel, wear knee pads and take micro breaks of 10-20 seconds to extend your leg and allow the knee to return to resting position. These micro breaks will allow blood flow and decrease risk of injury.



Can you raise the work off the floor so you don't have to squat or kneel to reach it?

Protect your knees and your future



Construction Ergonomics

WORK SMARTER, NOT HARDER

Knee Injury

Could this be you?

Twenty years ago, while working as a carpenter, Chris suddenly developed knee pain. Although he went to the doctor, he didn't think it was serious enough for the arthroscopic surgery the doctor ordered. Several years later, the pain returned. This time the doctor's visit revealed a tear in his meniscus, which had apparently been there all along. Chris finally had surgery to repair the tear, but a complication left him in worse pain than before. This led to total knee replacement and although he's now pain free, he has lost range of motion. Chris offers advice to his fellow construction workers: "Don't be the macho man; get your injuries treated timely and avoid complications later."

How could an injury impact your home life?

- Lower income
- Chronic knee pain
- Loss of career
- Reduced cash flow
- Loss of quality time with family

What puts you at risk?



Tasks that involve frequent stooping, kneeling, or squatting puts your knees at risk for injury.

The knee is made up of muscles that move the knee joints; tendons and ligaments that provide stability; cartilage to absorb shock; and the bursa, a small sac of fluid under the kneecap that lubricates your knee so it moves easily. All of these are susceptible to injury through excessive wear and tear or continual stress.

Activities that stress your knee

- Kneeling or squatting for long periods of time
- Repetitive kneeling or squatting
- Contact stress



Kneeling and squatting:

Overstretches the ligaments and squeezes the bursa. Excessive kneeling or squatting can cause irritation, inflammation, and pain. If the ligaments in your knee become too unstable, your knee may give out when you pivot your foot to turn and walk.

Overexertion: Tendonitis, or inflammation of the tendon, is often a result of overuse or overexertion of the knee. Overexerting the muscles around your knee can also lead to tearing and pain. Continuing to use your knee while in pain will only delay healing and may lead to long-term damage.

Contact stress: Using your knee as a hammer or kneeling on a hard floor are both examples of contact stress.

Excessive kneeling can cause the bursa to become irritated, leading to pain, inflammation, and limited range of motion.



If you work smarter while doing this

Your knees will be healthy enough for you to enjoy this



So what can you do?

For technical support, call the Oregon OSHA central office:

Salem Central Office
350 Winter St. NE, Rm. 430
Salem, OR 97301-3882
Phone: 503-378-3272

Toll-free number in English:
1-800-922-2689
Toll-free number in Spanish:
1-800-843-8086, option 3

For a free consultation, call the Oregon OSHA field office nearest you:

Portland	503-229-6193
Salem	503-373-7819
Eugene	541-686-7913
Medford	541-776-6016
Bend	541-388-6068
Pendleton	541-276-2353

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