

Kneeling in Pain

As a construction worker, you can't afford time away from the job. That's why it's so important to take care of your joints. According to the Laborers' Health and Safety Fund of North America (LHSFNA), "Musculoskeletal (muscle, joint, and bone) injuries are the most common injury problems in the construction industry." A recent study conducted by LHSFNA found that "40% of

maintain healthy knees for an active construction career.

Anatomy of the knee

The knee is especially vulnerable to injury due to its complexity. Not only does it bend and straighten, it allows twisting and rotating movements, all while supporting the majority of the body's weight. Few daily activities don't use the knee: walking, running, dancing, and jumping wouldn't be possible without this joint.

Comprised of four bones—the femur, tibia, fibula, and patella—the knee helps to create fluid movements unique to the human species. These bones fit together almost like the hinge of a door, allowing backward and forward movement, and are held in place by ligaments, or large bands of tissue. In the knee, there are four of these ligaments, as well as other tendons, meniscus (or C-shaped cartilage), and bursae (or fluid-filled sacs).

With all of these structures coming together, it becomes apparent why the knee is so susceptible to injury. Knee pain can

result from an injury during activity—a ruptured ligament or torn cartilage, or wear and tear from repetitive motions that result in chronic conditions. This is most common in the case of construction workers where the repetitive bending and kneeling motions take their toll.

Ergonomics can help

Taking care of your knees now can maintain overall health for years

to come, and for construction workers, this means a productive career.

Simple actions can help preserve your knees. Using proper bending techniques when lifting heavy objects will put less pressure on the knees. Also using carts and asking for help from another worker when the weight is too much—objects more than 50 pounds should not be lifted by one person. Stretching before strenuous work will help maintain limber muscles and joints.

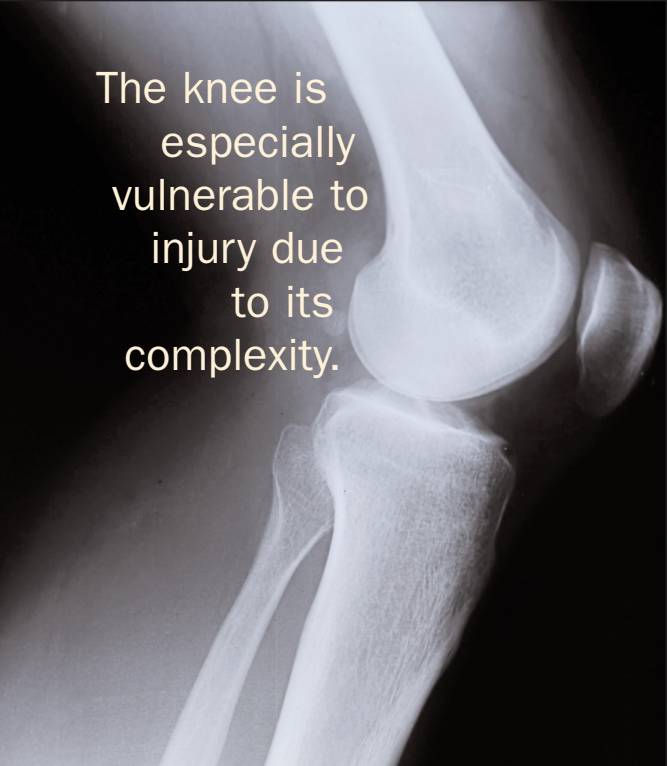
The Mayo Clinic offers the following suggestions to avoid joint injuries:

- Maintain a healthy weight so extra pounds don't strain joints.
- Strengthen the muscles around the knees, such as the quadriceps and hamstrings, which provide support.
- Limit high-impact activities if you already suffer from knee pain. Mix in low-impact exercises to offer relief.
- Ensure that your shoes fit properly. If they don't, you won't get the proper support you need.
- Wear proper safety equipment when activities lead to more wear and tear, such as kneepads.
- Take a break if your knees begin to hurt, otherwise you may end up injuring yourself.

Essential tools

For floor finishers, kneepads can distribute weight and pressure away from the knee while kneeling. NIOSH says the "use of kneepads can reduce injuries and increase production." The rebar tying industry also has responded to knee injuries by creating a number of handheld tying systems that reduce the need to bend the knees.

— Kate Hamilton



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construction workers said 'working while hurt' is a major problem."

Currently there is no OSHA regulation that covers ergonomics and the preservation of joints. A number of areas within the construction industry are dependent on the knees. Concrete floor finishing and rebar tying require considerable bending and kneeling that put a lot of stress on the knees. Therefore, it is crucial to properly train workers on how they can help

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