

# Diabetes and your hands

Did you know that diabetes can hurt, stiffen, and even disable your shoulders, wrists, fingers, and other joints? None of these conditions is well understood. So how can you prevent them and deal with them?

Of course, people without diabetes can have joint issues, but having diabetes raises your risk. All of these conditions seem to be related to thickening or stiffening of connective tissues — the ligaments and tendons that hold our bodies together. These tissues are mostly made of collagen, a protein that should have some give and flow to it, like a soft rubber ball. When collagen stiffens, joints start to hurt and don't work as well.

Here are four of the more well known diabetes-related joint conditions:

- [Frozen shoulder](#), also known as *adhesive capsulitis*, is a condition in which the range of motion of the shoulder joint is severely restricted. According to the American Diabetes Association, it affects 20% of people with diabetes and 5% of the general population. It usually starts with shoulder pain and inflammation and can progress to stiffness and near-complete immobility. Then it starts to resolve, and is usually gone within two years, especially with treatment.
- [Diabetic stiff hand syndrome](#) is a painless disorder caused by an increase in collagen in and just below the skin. It can sharply limit hand function.
- [Carpal tunnel syndrome \(CTS\)](#) is a painful condition caused by pressure on the median nerve, which passes into the hand through a narrow "tunnel." If this tunnel is squeezed by thickening of ligaments or other structures, severe pain can result. CTS is often associated with typing or other repetitive work that keep wrists in unnatural positions.
- [Trigger finger](#) is a condition where one or more fingers curl up and are difficult to straighten. The tendons that bend and straighten fingers "catch" and then may suddenly "click" open again. Trigger finger can be painful and is usually worse in the morning. Repetitive gripping motions can bring it on or make it worse.

All of these conditions involve some combination of inflammation and stiffening. So what does diabetes have to do with it? Some think that high blood glucose changes the balance of proteins, stiffening the collagen. Or perhaps some other inflammatory process contributes to the diabetes and the joint disease. But either way, what are some strategies for preventing dealing with these conditions?

## Prevention and Treatment

One thing all joint experts agree on is that prevention of these conditions is easier than treatment. Fortunately, there are things we can do for our joints at any state of health.

- **Stretching.** Joint stiffness is a vicious cycle. A part hurts, so you don't move it. So it stiffens up and hurts more, and you use it even less. It's important to break that cycle by moving the joint, even if it hurts a bit (but not severely). "Inflammation should be taken into consideration..., but unless the shoulder is severely inflamed, you would want physical therapy" says Michael Mueller, PT, PhD, about frozen shoulder. You might want to apply heat to loosen a joint before stretching.

You can see a video on [frozen shoulder exercises here](#) and read about them on [this Web site](#).

Orthopedists at the University of Oklahoma created this [illustrated guide](#) to stretches for carpal tunnel.

Trigger finger stretching is mostly a question of pulling the finger into a straight position and holding it. See a video about it [here](#).

- **Heat and cold applications.** According to [MedicineNet](#), heat relaxes stiff tendons, while cold reduces pain and swelling. You might want to alternate them or explore to see which works better for you.
- **Pain medicines.** If needed, anti-inflammatory medicines like ibuprofen can help. Sometimes you need to take those to be able to stretch.
- **Massage.** [The University of Maryland Medical Center](#) reports that "massage has been shown to calm pain and spasm by helping muscles relax, by bringing in a fresh supply of oxygen and nutrient-rich blood, and by flushing the area of chemical irritants that come from inflammation." Massage should probably be avoided when joints are hot, swollen, or tender to touch.
- **Avoid straining.** [Bruce Anderson, MD, writes](#) that "You should limit overhead positioning, reaching, and lifting. These restrictions can be eased as pain decreases and flexibility increases."
- **Improve blood glucose control.** This can't hurt, and it probably helps.
- **Physical therapy.** Therapists have an amazing variety of equipment and knowledge to help stiff and painful joints. These include ultrasound, fluid therapy, paraffin treatments, and many others.

- **Splinting (for trigger finger).** If you wake with curled fingers, you might try sleeping in finger splints to keep them straighter.

I strongly advise adding joint care to your self-management routine. If a shoulder, wrist, fingers, or ankles are becoming stiff and/or painful, do some gentle self-massage and apply heat once in a while. Give yourself some strokes. It's one form of self-care that feels good.

Source: <http://www.diabetesselfmanagement.com/Blog/David-Spero/diabetes-and-your-hands/>