

Power Saw Injuries

Power saws are very useful tools used to cut and shape all types of materials; however, they can cause serious hand injuries. The hands are vulnerable as they are used to guide pieces into the saw.

The degree of injury can vary widely. The severity depends on the location of the injury (finger, hand or forearm). Also, the depth of the injury is important (skin only vs. deeper tissues such as tendons, nerves, arteries and bone). Qualities of the saw change the injury as well. Differences in kerf (width of the cut made by the saw blade — **Figure 1**), tooth pattern, type and force of the saw can change the injury.

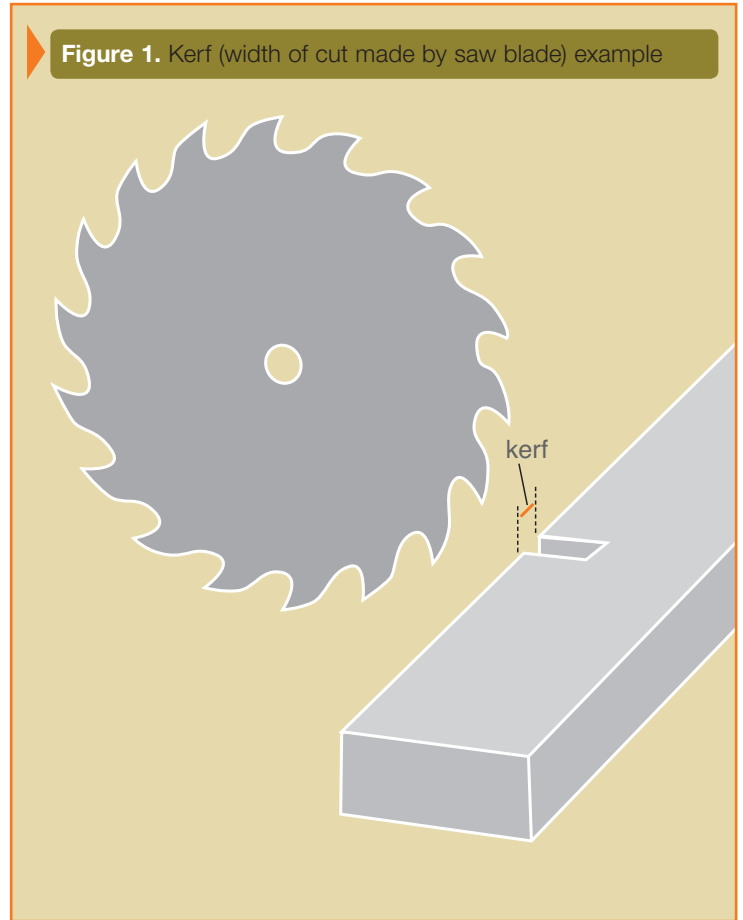
Anything that contacts the saw blade can be injured. Nerve injuries cause loss of feeling or loss of ability to control certain muscles. Circulation may be lost if the arteries are injured. Saws can also break bones. Sometimes you can lose part of the bone, which would lead to amputation. Electric shocks and burns can also occur with the operation of a power saw.

Causes

Many power saw injuries are caused by failing to follow safety precautions. Follow all the safety instructions provided for your power saw. Do not override safety guards; they are there for your protection.

- Never look away from your work.
- Never use your hands to clear the scraps from a sawing worktable. Instead, use a push stick.
- Do not wear loose clothing or jewelry.
- Keep your finger off the trigger when carrying a portable power saw.
- Do not use the saw to perform a task for which it was not designed.
- Use the correct blade for the application. Set it for the correct depth to minimize the amount of exposed blade and reduce the potential for binding.
- Use sharp blades. Dull blades cause binding, stalling and possible kickback.
- Avoid cutting nails.
- Use a rip fence whenever possible.
- When starting, let the saw reach full speed before cutting and support the work firmly so it will not shift.
- If the saw stalls, switch off the power and unplug the tool before trying to restart it.
- When working with metal, secure the metal materials with clamps or in a vise to keep it from moving.
- Check for proper blade guard operation before each cut.

Figure 1. Kerf (width of cut made by saw blade) example



- When starting or stopping the saw, make sure the work is not touching the blade.
- Lower a table saw blade below the table top when finished.
- Keep a clear head, concentrate, and **DO NOT DRINK ALCOHOL** before using a power saw!

There are now commercial table saw products available to decrease injury. The technology works quickly to stop the blade from cutting if it senses you have touched the blade.

Treatment

Some treatment options include:

- Stitches or bandages for cuts
- Skin grafts for larger skin injuries
- Casting for broken bones
- Amputation (removal) or replantation (reattachment) of the finger, hand or arm

Not all of these treatment options are possible. Consult your hand surgeon for the best option. Side effects such as weakness, stiffness or numbness are common after power saw injuries.