

First Aid for Woodturners

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The initial treatment of an injury can often make a substantial improvement in the final outcome. Therefore, it's a good idea to review first aid procedures even if they're not new to you. In the process we will identify injuries requiring professional care; the photo on the facing page details a shop First Aid Kit.

Injuries happen quickly without warning and when least expected. Every shop should have a First Aid Kit and should also be equipped with a telephone, if possible, to summon help. If having a telephone is not feasible, install a loud outside horn that will attract attention.

Do not panic. Many treatment errors occur when this happens. Reconstruct the injury: How did it happen? Could there be wood splinters, fragments of glass, or metal, in the wound? Can you account for all broken tool parts? It may be well to take what you can find to the doctor if you are seeking professional care because this additional information helps in the evaluation of the injury and in searching for missing pieces.

If in your judgment medical attention is needed, do not delay. The outcome, especially in open wounds, will be improved with early care.

Contusions (Bruises)—Contusions usually occur from being struck with a blunt object. Swelling and bruising may begin immediately and are usually in proportion to the extent of the injury. Fractures may also be present. Treatment consists of rest, ice, compression and elevation or R.I.C.E. All bandages are useful for compression but should not be applied so tightly as to cause a tourniquet effect.

Ice can be helpful for up to 48 hours. Do not apply heat until after 48 hours because heat dilates the vessels and may cause increased bleeding. We continue to hear many patients say, "I did not know whether to apply ice or heat."

Sprains—In this injury, joint ligaments are stretched or torn completely. If the ligament is completely torn, instability of the joint results, usually requiring medical attention. Initially R.I.C.E. is indicated and splinting of the injured part. In woodturning the injury typically involves fingers or thumb. Popsicle sticks make great splints.

Abrasions and Scratches—Superficial abrasions are treated the same as scratches: They should be washed with germicidal soaps such as betadine and then covered with a light coating of antibiotic ointment and dressed with sterile dressing.

Deep abrasions may be full skin thickness and expose the fatty tissue beneath the skin. Medical attention is suggested for these. The initial treatment, however, is still careful cleansing with water and germicidal soap, antibiotic ointment, and sterile dressing. Often times this injury occurs when a fingertip touches a grinding wheel or disc/belt sander. Grit, dirt, and sawdust may be embedded deeply and can cause permanent "tattooing" of the skin. There is significant danger of infection with this type of injury because the protective barrier (skin) is lost and foreign material often carries infective bacteria.

Splinters—When you get a splinter in your hand STOP WORK immediately and remove it. If the splinter breaks off at skin level, removal is more difficult.

Wash your hands gently with antibacterial soap, taking care not to break off the splinter. Sterilize a needle and tweezers by boiling for 10 minutes or by heating tips with a flame. Wipe off the black carbon with an alcohol sponge and proceed. Use bright light and magnification. Many hardware stores and woodworking supply catalogs sell magnifying tweezers. Carefully loosen skin around the splinter with the needle, grasp the splinter with tweezers, and remove. If the splinter breaks off and is deeply embedded, professional help may be needed. After removal, re-clean with germicidal soap, dry the skin, apply antibiotic ointment and dress with a band-aid. Flexible band-aids stay on better.

Splinters are foreign bodies and if left alone may cause foreign-body reactions. White blood cells attack the wood in an attempt to destroy it. This results in tissue reaction (swelling, redness, pain) and the formation of pus. During this process the splinter will sometimes be pushed out and healing occurs. Infection can also be associated with this process. Some woods cause more reaction than others. Salt-treated wood is extremely irritative to soft tissue. Soft pine, for instance, can usually be fragmented by the white blood cells if the splinter is not too large, whereas a rosewood splinter may continue to cause pus formation indefinitely, or it could be walled off by fibrous tissue. Bottom line—get it out!

Eye Injuries—Eye injuries are common in the woodturner's shop and they're potentially very serious. The best remedy is prevention: wear shatterproof safety eyeglasses AND a face shield. If there is debris or chemicals in

the eye, flood it with warm water for 15 minutes with water and seek medical attention.

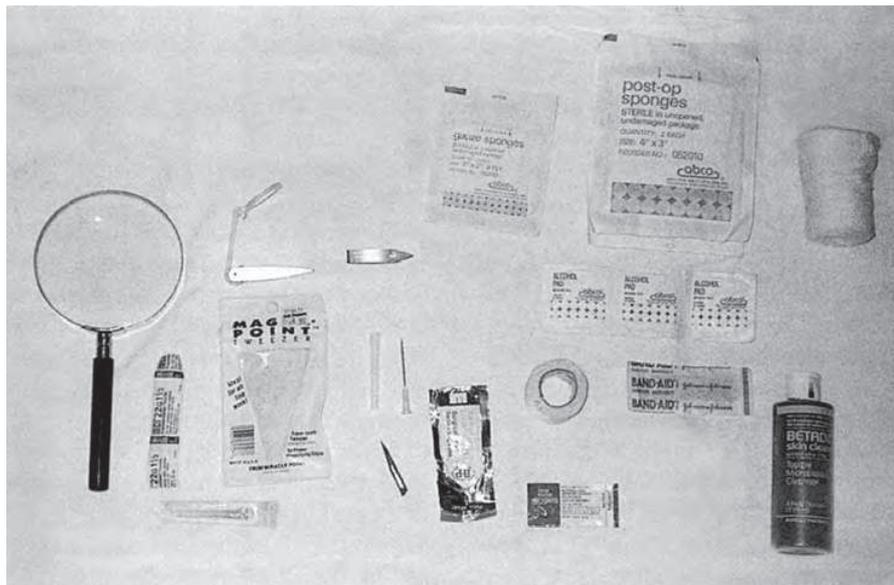
Fractures and Dislocations—In closed injuries the bone does not protrude through the skin. Do not attempt to straighten deformities. Splint fingers with popsicle sticks, arms with boards, magazines, or rolled-up newspapers, and seek medical help. Ice packs en route are helpful.

If bone protrudes through the skin, do not irrigate the wound or attempt to replace the bone beneath the skin. Apply a sterile pressure-dressing splint and immediately seek professional care.

Burns—Thermal, chemical, and electrical burns are all classified by degree. A first-degree burn causes only reddening of the skin as in a mild sunburn and causes some discomfort. A second-degree burn causes more reddening, mottling, and blistering of the skin. A third-degree burn means total or complete destruction of the skin, full thickness, with a grayish, blotchy discoloration.

First apply cool compresses since this may lessen the depth of the burn. Compresses may be helpful for 30 to 40 minutes. After that, clean the skin with betadine soap and apply burn ointment and a dressing. First- and milder second-degree burns usually do not require medical care.

Lacerations (Cuts)—Control of bleeding, if profuse, is the first step. Apply a stack of sterile compresses (pads) or clean cloths if pads are unavailable, and a compressive dressing. If this fails, apply continuous pressure directly over the wound. At times an arterial pressure point can be found above the wound. Tourniquets are used only as a last resort. Apply only with enough pressure to control bleeding and always note the time of application—limit tourniquet use to 45 minutes.



A large drugstore can supply most of the components of a First Aid Kit; your home, shop, or a specialty hardware store can fill in the miscellaneous items.

Solutions: Betadine microbicial cleanser or iodine soap, hydrogen peroxide, eyewash bottle, sterile saline or water, acetone (for dissolving cyanoacrylate glue).

Ointments: burn, bactiociin antibiotic.

Dressings: flexible band-aids, sterile 4x4" gauze pads (12), sterile cotton gauze or roller bandages, steri-strips (to close small lacerations), 3-4" elastic Ace bandage, adhesive tape, sterile cotton tip applicators, sterile gloves.

Miscellaneous: Ziploc bag for ice cubes, needles and magnifying tweezers for splinter removal, splint materials for stabilizing fractures.

For a large open injury, seek immediate medical care. For wounds less severe, irrigate copiously with a mixture of 50/50 hydrogen peroxide and sterile saline if available. If not, use tap water and betadine soap solution—a mix ratio of 1/2 ounce of betadine to 1 quart of water would be adequate. Avoid touching your mouth, which is full of bacteria, to the wound. After irrigation, dress with sterile dressings and compressive bandages.

Listen to your body! Increasing pain, swelling, or drainage suggests wound infection. Deformity, loss of motion, and numbness suggests injury to bone, muscle, tendon, or nerve.

Amputation—Bring all amputated parts to the hospital. Reimplantation may be possible, and at times skin might be used for grafting. Wrap the part in sterile pads, place in a zip-loc bag, and put this bag in a larger bag containing ice. Do not freeze the tissue.

Prevention of an injury is far better than magnificent first aid. Remember that all these suggestions must be tempered with good judgment.

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