dressing, always opening dressings by the corner of the package to minimize exposure, and always using universal precautions.

**MINOR WOUNDS**

A minor wound can be treated using the following steps while adhering to sterile techniques:

- Use disposable gloves or an appropriate barrier between your hand and the wound.
- Apply direct pressure to the wound using sterile gauze (the patient can often apply direct pressure while you are donning gloves).
- Irrigate the wound with a sterile water solution for several minutes (if not available, clean running tap water is acceptable). All wounds should be considered contaminated and thus cleaned appropriately. Irrigation can be performed using a large syringe (500 mL) and a sterile saline solution. This solution may be diluted with 3% hydrogen peroxide.
- Clean the area around the wound with mild antibacterial soap and water.
- Cover the wound with a sterile dressing (eg, nonstick absorbent pad) and a bandage (eg, roll gauze). Note: If the wound has been cleaned and does not need to be seen by a physician, an antiseptic/antibacterial ointment can be applied to the dressing. Clean moist dressings are associated with faster healing and less discomfort for patients than dry dressings. If available, a moist dressing such as a hydrocolloid or polyurethane semipermeable film should be used to cover the wound.
- Dressings should be inspected and changed often.

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**Do I Need Stitches?**

The decision to refer a patient for sutures can be a difficult call for the athletic trainer. Some simple guidelines can help. The patient likely needs sutures if:

- The edges of the wound do not align well
- The wound is over 1 inch in length

The following injuries ALWAYS should be referred and often require suturing:

- Bleeding that is difficult to control
- Any cut or wound that exposes tissue below the skin
- Embedded objects
- Human and animal bites
- Large punctures
- Wounds on the face that may leave a scar if left unattended

When in doubt, trust your gut. If you think the wound needs stitches, it likely does and you should refer the patient to a physician.

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**Tetanus—Better Safe Than Sorry**

The micro-organism *Clostridium tetani* can cause tetanus when it infects open wounds. The organism can multiply in an environment that is low in oxygen, which makes puncture wounds and deep wounds at particular risk for infection. Over 1 million people in the world contract tetanus annually and up to 1 in 3 may die from the disease. The organism produces a powerful toxin that can affect the CNS. Tetanus is sometimes called “lockjaw” due to the spasm that can occur in the muscles around the jaw. Once in the nervous system, the effects are irreversible. Developed nations with extensive immunization programs have all but eliminated the disease. Only 130 cases of tetanus were reported in the United States between the years 1998 and 2000 with a fatality rate of 18%. The majority of cases are found in adults. It is recommended that adults receive a tetanus booster once every 10 years if they are between the ages of 19 to 49. C. *tetani* is found in soils rich in organic matter and the feces of cows and horses. Thorough cleaning of all wounds is an essential first line of defense for prevention of tetanus as well as other potential contaminants. Athletic trainers must be aware of the immunization status of patients in their care. It is common practice for young adults to receive a tetanus booster if they sustain a wound. Consult with a physician if there is any question.