

Wounds.*

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A VERY large portion of the field of surgery is occupied by wounds. The sting of an insect, the bite of a dog, the burn of flame, chemical or friction, the crush of a car wheel, the thrust of a sabre, and so on in the thousand and one ways in which the body may be injured by external violence—all are wounds of greater or less degree. The variety of wounds is so great, and the treatment so diversified, that it is necessary in a study of the subject to have some sort of classification as well as numerous technical terms.

A *contusion* is one of the simplest forms of wounds. It is usually made by some force which crushes or lacerates the subcutaneous tissues in some degree without breaking the continuity of the skin. If only the external layer of the skin is injured or partially rubbed off, as by a sliding fall, we have an abrasion.

It is often necessary to speak of the degree to which a part is contused; thus in a slight pinch the tissues may not be perceptibly impaired, while the injury produced by a wheel of a heavy cart may almost pulpify the soft parts. Discoloration usually follows contusion. It is caused by the rupture of blood vessels under the skin, and the dark spot produced is called an ecchymosis. When deeper structures are involved and large vessels lacerated, as in the fracture of a bone, the discoloration may not appear for several days, and is often of a greenish yellow hue.

The symptoms of contusions, in addition to discoloration, are pain, swelling, and more or less shock. With regard to pain, much depends upon the kind of tissue injured as well as the degree of contusion. Thus, if only the skin and soft tissues are pinched, the pain, though prominent at first, is not lasting; but when denser tissues are involved, such as the periosteum, or the structures about a joint, the pain persists for a long time. In some parts, as the eyeball and the testicle, the pain and shock of contusion are especially severe.

The swelling that follows a contusion is due to the effusion of blood from the subcutaneous vessels. Where the tissues are least dense the swelling will be greatest, other conditions being equal. Vesicles, or blebs, sometimes appear on the contused surface, but not unless

the injury is somewhat severe. These blebs are filled with bloody serum, and often give the injured part a worse appearance than the actual condition justifies.

The prognosis of contusions is generally favourable, unless the parts involved are important to life or the degree of injury great. In unhealthy subjects a contusion of soft parts, if severe, may result in abscess; the common felon, or periphallangeal cellulitis, is said to come from such an injury.

In the treatment of a severe contusion the first indication is to arrest, as far as possible, the effusion of blood. To accomplish this the nurses or surgeon should elevate the part, if on a limb, and apply cold. Alcohol diluted, or in such tinctures as arnica, is a serviceable remedy as, on account of its affinity for water, it exerts a cooling and sedative effect upon the contused structures. Whisky and water, equal parts, or diluted alcohol with ammonium chloride, make useful applications. The sooner the cold application can be made in the case of a contusion the more effective will be the treatment. An excellent remedy for the finger-jams and blows to which children are liable is the immediate application of cold water. If the injured finger or the bumped head can be put under the cold water faucet within half a minute after the accident, the pain, swelling, and subsequent soreness will be reduced to a minimum.

Lacerated Wounds.—These wounds are generally produced by some agency which tears, bites, or crushes the parts, making an irregular opening in the skin. One of the most noteworthy points of difference between lacerated and incised wounds is that in the former there is less bleeding than in the latter. The reason for this is that the rough instrument, producing the laceration, so cuts the blood vessels as to leave their open mouths rough and irregular—the conditions most favourable for the production of a clot. Another point of difference is that lacerated wounds are not likely to heal by "first intention."

In the treatment of lacerated wounds the surgeon strives in the first place to arrest the hæmorrhage, and then make the wound as thoroughly aseptic as possible. If large vessels have been divided, and the injury is in a limb, some form of tourniquet must be applied at once, and, of course, above the wound. In the practice of her profession the nurse may often be called upon to render first aid in the case of an extensive laceration

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