

Lectures on Anatomy and Physiology as Applied to Practical Nursing.*

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The special Nursing of Rickets is carried out on the same principles as are involved in the nursing of patients suffering from other bone diseases; and can therefore be most usefully considered after those diseases have been discussed. So far as nurses are concerned, the subject may be simplified by saying that the diseases, to which bones are subject, are due either to inflammation of the membrane or *periosteum* covering the bone, and hence called *periostitis*, or to inflammation of, or tumours growing from, the bone-tissue itself. It is worth noting here that wherever the term *itis* is employed, it always means "inflammation." For example, *peritonitis* means inflammation of the peritoneum; *pericarditis*, inflammation of the pericardium, and so on.

Periostitis is most commonly found on the front of the bones most thinly covered by flesh; for example, the shin-bone or *Tibia*, the *ulna*, the *clavicles*, and the skull bones. As can, therefore, easily be understood, it is often caused by blows or falls or other injuries to these exposed bones; but it is also often found associated with Syphilis, Rheumatism and Scrofula. In the former, or *accidental* cases, the injury causes bruising of the bone, and of its *periosteum*; the separation of one from the other; and the collection between the two of a clot of blood. In healthy people, such a clot dries up, becomes absorbed, the *periosteum* adheres again to the bone, and nothing further happens. In severe cases, or in unhealthy people, the blood or lymph spreads upwards and downwards, separating the membrane more and more widely from the bone, then becomes converted into "matter" or "pus," or in other words an *abscess* is formed. The skin over it becomes reddened, swollen, and very painful, and until the surgeon opens the abscess or Nature enables it to "burst," the case goes from bad to worse. The accompanying illustration (Fig. 13) shows the pitted appearance of a bone of which the greater part of the *periosteum* had been inflamed. Once the abscess is opened, and of course the sooner this

is done, the more the disease will be limited, the nurse will be required to carry out careful and frequent application of the poultices or dressings ordered by the doctor. In the second class of cases, those due to *Constitutional* causes, smaller or larger swellings appear on the bones referred to and are called "*nodes*." These are due to a deposit of unhealthy lymph between the

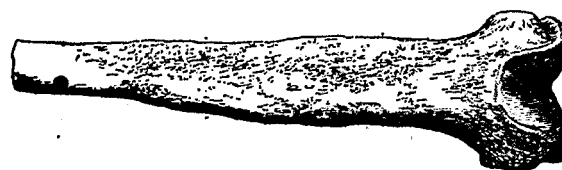


FIG. 13.—The thigh bone roughened by periostitis.

periosteum and the bone, and any blow or injury to them usually results in the rapid formation of an abscess, and when this is opened an irregular or deep circular ulcer is formed.

Caries is a form of inflammation which causes the bone to decay, whence the name given to the condition. The affected part softens—ulcerates away, leaving an unhealthy cavity, which, unless the process is stopped, eats in deeper and deeper into the tissue until the shell of bone collapses. An instance familiar to everyone is a decayed tooth. The form in which nurses most frequently see it, is when the *Caries* affects the spinal bones, and its many distressing symptoms follow. The accompanying illustration (Fig. 14) shows the



FIG. 14.—Caries of bone.

effect produced on the bone; it can easily be understood that abscesses rapidly form where the bone is thus decaying—how the nerves all round are irritated, pressed upon and inflamed—why in *Caries* of the spine these patients suffer from agonising pain and neuralgia—how the abscesses burrow their way along and beneath the muscles until at length they show themselves, perhaps far away from the site of the bone disease—and why these patients gradually lose flesh and strength and die of sheer exhaustion.

Necrosis of a bone is generally the result of inflammation. The term means that the affected portion actually dies. Formerly, this was much more common than it is now, because the match-makers who sucked, or inhaled the fumes of, the phosphorus with which they

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