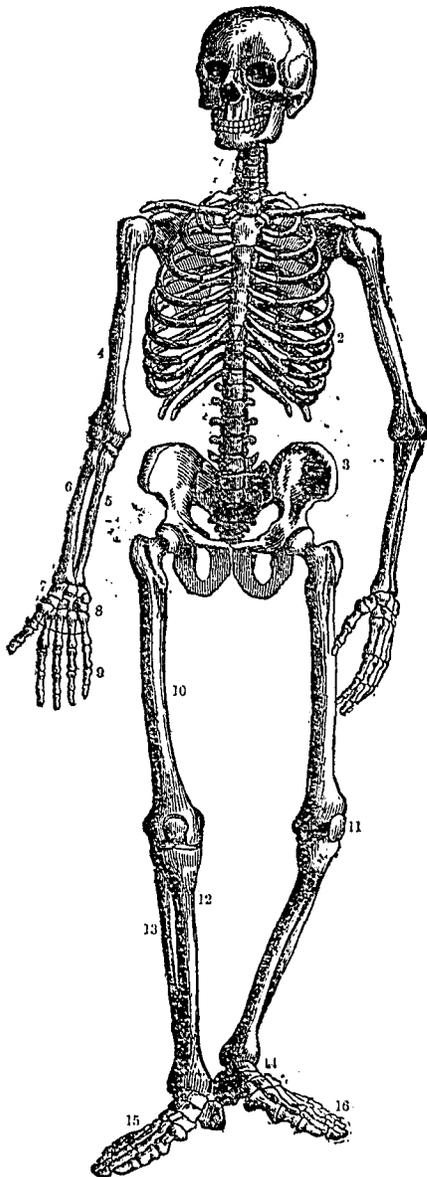


A GUIDE TO MEDICAL AND SURGICAL NURSING.\*

CHAPTER V.—BONES OF THE SPINE.



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|-------------|----------------|---------------|-----------------|
| 1.—Frontal. | 5.—Ulna.       | 9.—Phalanges. | 13.—Fibula.     |
| 2.—Ribs.    | 6.—Radius.     | 10.—Femur.    | 14.—Tarsal.     |
| 3.—Ilium.   | 7.—Carpal.     | 11.—Patella.  | 15.—Metatarsal. |
| 4.—Humerus. | 8.—Metacarpal. | 12.—Tibia.    | 16.—Phalanges.  |

THE *spinal column*, or backbone, as it is more commonly called, consists of twenty-four bones, or *vertebræ*, the *sacrum*, and the *coccyx*.

\* These articles are partially from the pen of the late Miss Alice Fisher and Mrs. Norris, and will eventually be published in book form, being revised by the latter.

The word *vertebra* comes from the Latin word "to turn." Each bone has a hole through the centre, so that when they are all put together a long canal is formed, which is known by the name of the *spinal canal*, which protects the *spinal cord* or marrow. This spinal cord consists of nervous matter in connection with the brain, and is so essential to life that most injuries to it are followed by death.

These bones are very strongly bound together by cartilage—indeed, so strongly, that they can be more easily broken themselves than torn asunder.

The first, or uppermost, bone of the spine, supporting the head, turns on a pivot, which springs up from the second bone, thus enabling the head to turn in all directions.

The spine is divided as follows :—

Seven *cervical* or neck *vertebræ*.

Twelve *dorsal* or back *vertebræ*.

Five *lumbar* or loin *vertebræ*.

The lower part of the backbone is formed by the *sacrum*, or cross bone, which consists in reality of five bones; but these, in adult life, become consolidated together so firmly as to present the appearance of a single bone.

This is the case, likewise, with the *coccyx*, or tail-bone, which is the lowest bone of all, and which consists of four distinct *vertebræ*, which are united in one in the adult.

In all cases of fracture of the spine, the slightest movement is attended by such intense pain that all attempts to undress the patient (at any rate if it be a man), otherwise than by *cutting* the clothing, will be found unavailing, though I need hardly say that unnecessary waste of clothing should always be avoided.

In injuries to the spine, complete rest is essential, and this is obtained by attention to position. The body should be so supported that not the slightest strain is put upon the spinal column.

There are few beds better suited for these cases than what is known as an "Alderman's couch," which is so constructed as to enable the Nurse to attend properly to her patient's comfort with the least possible disturbance.

Fracture of the spine being constantly attended with paralysis, it often happens that the circular muscle that guards the outlet of the lower bowel loses its power of contracting and holding in its contents, which are passed in bed involuntarily. The contents of the bladder may also be voided unconsciously in the same manner, or they may be retained, causing great and dangerous distension. This will have to be well looked to, and remedied by the use of the catheter. The constant dribbling away of water may take place even when the bladder is distended almost to bursting, and is very apt to mislead the attendant. If the bladder

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