

the neck of the thigh bone, in youth and in old age. In youth the neck of the thigh bone stands off at an obtuse angle, is longer and firmer than in aged subjects; while in advanced years, the external dense portion of the bone appears atrophied, leaving a thin shell inclosing the cancellous texture; the neck, also, obtains a right angle, losing the obliquity which it formerly presented; and this condition may be particularly observed in the female; possibly in some degree dependent upon the greater width of the pelvis. At this period, also, these structures become extremely brittle. Under such circumstances it is more than probable that the application of the same force I here allude to will be attended with different effects in these various conditions. The blow upon the trochanter major that would at one period cause a transverse fracture of the neck of the thigh bone, would at another time break up the superior portion of the shaft of the bone into fragments.

Should the action of the force be less direct, not exactly parallel with the neck of the thigh bone, as in the injury just alluded to, its effect upon the superior portion of the shaft of the femur may be more extensive—the neck of the thigh bone acting as a wedge, may break it up, separating one or both of the trochanters from the shaft of the bone. Under these circumstances, the numerous muscles inserted into the part may cease to have any effect upon the shaft of the femur. These fractures may have occurred without implicating the capsular ligament of the joint; while in other cases these structures may have participated in the injury which has been inflicted upon the neck of the thigh bone. Should the direction of the force assume a greater angle with the neck of the thigh bone, which may readily occur in young people, when this structure obtains an obtuse angle, such a force acting superiorly upon the trochanter major, may cause a fracture of the neck of the thigh bone within the capsular ligament. Such are the varying influences which obtain in youth and old age.

Should the direction of the force be from above downwards, instead of being from without inwards, as we have pointed out; the oblique position of the neck of the thigh bone renders it liable to receive the whole weight of the body in an unfavorable direction; hence its liability to fracture; and the right angle which the bone assumes in old age, renders the patient now liable, especially in the female, to the production of this accident. Fracture of the neck of the thigh bone will occasionally occur with so little violence, that the fibrous reflection of the