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Opinion Article

Clinical Study and Outcomes of Orthopedic Joint Treatments

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DESCRIPTION

The treatment of the musculoskeletal system is the main emphasis of the medical specialty of orthopedics. Muscles, bones, joints, ligaments, and tendons make up this system. A joint is the place where two bones meet. Joints can be categorized histologically based on the predominant connective tissue type or functionally based on the range of motion allowed [1]. Classification of Joints in the body are included by Condyloid joint, Pivot joints, Ball and socket joints, Hinge joint, Saddle joint and Ellipsoid joint.

Condyloid joint is an ovoid articular surface, or condyle, that is received into an elliptical cavity. It is also known as a condylar, ellipsoidal, or bicondylar joint. This enables movement in two planes, enabling circumduction, adduction, flexion, and extension. Wrist joints are also included by condyloid joints. The hands also have condyloid joints that allow for finger mobility. Ball-and-socket joints is a type of joint are found in vertebrates that allows for the most range of motion of any joint type by allowing the rounded surface of one bone to slide into the depression on another bone [2]. The distal bone can rotate around an infinite number of axes, all of which share the same central point. The joint can now move in a variety of directions. Ball-and-socket joints are such as hip joints, allow backward, forward, sideways and rotating movements.

Hinge joint has articular surfaces that are moulded to one another to allow for only one plane of motion [3]. There is typically some deviation from the straight line during flexion, the path that the distal bone takes in this motion is rarely in the same plane as that of the axis of the proximal bone. Synovial joints come in the form of hinge and pivot joints. Hinge joint as a modified saddle joint with less movement. A bone joint is known as a hinge joint called a ginglymus or ginglymoid. Saddle joint allows movement in two planes: flexion or extension and abduction or adduction. This joint is primarily created by the articulating surfaces of the bones, which have both concave and convex sections [4]. It can be discovered in the thumb, thorax, middle ear, and heel. Synovial joint is also known as a saddle joint. Pivot joints is a long axis of the proximal bone, which often has a convex articular surface, that is parallel to the movement axis of a pivot joint also known as a trochoid joint, rotational joint, or lateral ginglymus in animal anatomy. A pivot joint has one degree of flexibility, just as the hinge joint. Ellipsoid joint is a biaxial joint, that all angular motions are possible at an ellipsoid joint. Ellipsoid joints can move in two directions from back and forth and side to side [5]. These joints can be found between the metacarpophalangeal, metatarsophalangeal, wrist, and knuckle joints of fingers.

CONCLUSION

The purpose of joints is to allow two bones to move relative to one another. The bones that meet at the joint must be connected to one another for this to function. The attachment must be both rigid enough to hold the joint in place and flexible enough to permit movement of the bones.

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