

THE INFLUENCE OF THE X-FACTOR IN GOLF HIT

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Hitting a golf ball with a golf club is a complex and highly coordinated movement of the entire body of an athlete, allowing the ball to travel long distances around the field.

The range of movement of the ball when hitting it with a stick is determined by the vector of the initial velocity of the ball and its spin, which is determined, other things being equal, by the angular velocities of the player's body links that make up some kinematic chain. The initial speed of the ball also depends on the efficiency of transferring the momentum from one link of the body to another when making a strike, that is, on the technique of making a swing. The golf swing technique is a constant subject of research by many specialists.

The term X-factor is used to describe the rotation of the shoulders in relation to the hips throughout the entire swing. The X-factor of golf swing is tried to get by maximum rotation of the player's shoulders relative to the hips at the top of the backswing. This large rotation creates an increased potential energy of X-factor. During the backswing, the thigh, torso, and shoulder muscles rapidly stretch, loading them with elastic energy, and then quickly shorten or contract during the downward movement.

It has been suggested that the larger the X factor, the more the ball will move. The term was popularized in 1992 in Golf magazine. It has been reported that the larger the size of the X-factor, especially at the top of the backswing, the greater the distance the ball will travel.

A number of additional studies have found moderate-to-significant correlations for X-factor and ball speed values, as well as marked differences in X-factor between skilled and unskilled players. In general, more experienced players have higher X-factors and greater ball travel distance.