xG Definition & Calculation

xG is a metric designed to quantify the quality of scoring chances and the probability that a shot will result in a goal.

There are 6 key factors that are taken into account when calculating xG. These are – **shot location, the type of shot, the assist type, the defensive pressure and the goalkeeper position.** The position on the pitch where the shot is taken is crucial, as shots taken closer to the goal generally have a higher xG value compared to those taken from long distances.

The nature of the shot—whether it’s a header, a volley, or a strike with the foot—affects the probability of scoring, with headers and volleys often having different xG values compared to standard shots.

How the ball arrives at the shooter also has an impact on the xG value, for example, a shot following a perfectly placed cross might have a higher xG than one following a less precise pass.

Similarly, the presence and proximity of defenders can reduce the likelihood of scoring, with shots taken under significant pressure typically having lower xG values. Finally, the position and actions of the goalkeeper can influence the xG value, with well-positioned goalkeepers lowering the probability of a goal being scored.

Source:   
  
[Decoding Expected Goals (xG) and Expected Goals Against (xGA)](https://www.isspf.com/articles/decoding-expected-goals-and-expected-goals-against/#:~:text=There%20are%206%20key%20factors,pressure%20and%20the%20goalkeeper%20position.)