Saccades Eye Movements

Saccades are rapid, jerky eye movements that allow us to quickly and accurately shift our gaze from one point to another. They are a crucial part of our visual system and allow us to process visual information effectively.

During a saccade, the eyes move in a series of quick jumps rather than moving smoothly like they do during smooth pursuit eye movements. These movements are typically very fast, with saccades occurring at speeds of up to 900 degrees per second.

Saccades are controlled by the brain's oculomotor system, which includes a network of neurons located in the brainstem and the basal ganglia. These neurons send signals to the muscles in the eye, causing them to contract and move the eye in the desired direction.

There are several different types of saccades, including voluntary saccades, which are initiated by the conscious decision to move the eyes, and reflexive saccades, which are triggered by stimuli in the environment. There are also microsaccades, which are very small saccades that occur spontaneously and are thought to play a role in maintaining the clarity of the image on the retina.

Saccades are an essential part of how we interact with the world around us, allowing us to rapidly scan our surroundings and gather information. They are also important for reading, as they allow us to quickly move our gaze from one word to the next while reading text.