In the context of **tuberous sclerosis complex (TSC)**, a **tuber** refers to an abnormal growth or lesion in the brain, typically found in the cerebral cortex. These tubers are a hallmark feature of the disorder and are thought to result from the genetic mutations in the TSC1 or TSC2 genes, which regulate cell growth and differentiation.

Key characteristics of tubers: - **Location**: They are most commonly found in the cerebral cortex but can also appear in other parts of the brain. - **Appearance**: On imaging studies (like MRI), tubers appear as regions of abnormal brain tissue. They are often seen as areas of high signal intensity (bright areas) on MRI scans. - **Effects**: These tubers can lead to neurological symptoms such as seizures, developmental delays, intellectual disabilities, and other cognitive or behavioral issues, depending on their size and location. The presence of tubers is often correlated with the severity of these symptoms. - **Growth**: Tubers are generally present from birth and may increase in number or size over time, though some may remain stable.

The exact role of tubers in the development of TSC-related neurological symptoms is still an area of research, but they are considered to be a major factor in causing the neurological manifestations of the disease, including epilepsy, developmental delays, and cognitive challenges.

Regular monitoring, including MRI scans, is essential to track the presence and changes in tubers, especially in those who experience seizure activity or developmental issues. Treatment for seizures and related symptoms is typically a key aspect of managing tuberous sclerosis complex.