

Cerebral blood flow velocity

The introduction of transcranial Doppler ultrasound (TCD) to measure [cerebral blood flow](#) (CBF) velocity has provided a powerful tool for non-invasive assessment of dynamic CBF velocity responses to drugs, nutritional supplements as well as various other stimuli.

TCD, which can provide continuous beat-to-beat measurement of the CBF velocity in the basal cerebral arteries with a high temporal resolution, has become the most commonly utilized tool to study relative CBF changes and regulation in humans.

One inherent problem with TCD is the inability to measure diameter of the artery at the point of insonation due to the scatter of the ultrasound beam through the bone plate of the skull. While several previous studies using a variety of techniques (¹³³Xe, SPECT, MRI) have confirmed that relative changes in CBF velocity are representative of changes in CBF, other groups have found poor correlations between changes in CBF velocity and CBF during drug stimulation.

From:

<https://neurosurgerywiki.com/wiki/> - **Neurosurgery Wiki**

Permanent link:

https://neurosurgerywiki.com/wiki/doku.php?id=cerebral_blood_flow_velocity

Last update: **2024/06/07 02:55**

