

□ Optic Nerve Diameter

The **optic nerve diameter** refers to the measurable width of the optic nerve, assessed by imaging techniques such as **MRI**, **ultrasound**, or **fundoscopy**.

□ Normal Values

Location	Normal Diameter	Notes
Intraorbital (ultrasound)	3.0 – 5.0 mm	Measured 3 mm behind the globe (standard site)
Intracanalicular (MRI)	~2.5 – 4.5 mm	Depends on age and myelination
Intracranial (MRI)	~4 – 6 mm	Includes nerve and sheath

□ Clinical Significance

- **Increased diameter:**
 - Papilledema
 - Optic neuritis
 - Optic nerve glioma or meningioma
- **Decreased diameter:**
 - Optic atrophy
 - Glaucoma
 - Optic nerve hypoplasia
 - Post-radiation changes

□ ONSD in Neurocritical Care

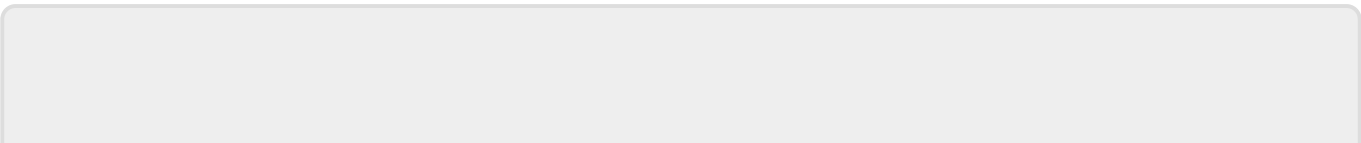
Optic Nerve Sheath Diameter (ONSD) is a useful non-invasive marker of **intracranial pressure (ICP)**.

- Standard site: 3 mm posterior to globe (ultrasound)
- **ONSD > 5.0-5.7 mm** → suggests **ICP > 20 mmHg**

This measurement is increasingly used in emergency and intensive care settings for rapid screening.

□ Ultrasound Measurement of the Optic Nerve Diameter

Ultrasound Measurement of the Optic Nerve Diameter



From:

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

Permanent link:

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

Last update: **2025/06/16 17:02**

