Optic nerve conditions

Optic disc drusen

- Disc drusen are composed of small proteinaceous material that become calcified with advancing age.
- These deposits can be considered as small tumors that develop within the optic nerve head, and may lead to an elevated disc. Therefore, this condition is sometimes called as a pseudo papilledema.
- Pathogenesis is thought to be related to possibly inherited dysplasia of the optic disc with blood supply comprise, causing slowed axoplasmic flow and leading to the formation of calcific secretion.
- **Patients are usually asymptomatic.** Rarely, they can have transient visual disturbances (9% of patients).
- Visual field loss may also be seen gradually, and it has been estimated that a quarter of patient with optic disc drusen have a visual field defect other than an **enlarged blind spot**.
- If the optic disc drusen are superficial, this can aid in diagnosis during the dilated fundus exam.

The optic nerve usually has a "lumpy-bumpy" appearance:
- elevated, often small, optic disc with indistinct and irregular disc margins
- drusen seen as round, white/yellow refractile bodies on the surface of the nerve or buried beneath it
- anomalous vascular branching pattern (tortuosity, opto-ciliary shunt vessels)
- nasal margin is most common site for drusen
- over 70% of the cases are bilateral, but asymmetric

This image was originally published in the Retina Image Bank. Henry J. Kaplan, MD University of Louisville Co-author(s): Niloofar Piri, MD. University Of Louisville. Year 2013; Image Number 5301. © the American Society of Retina Specialists.