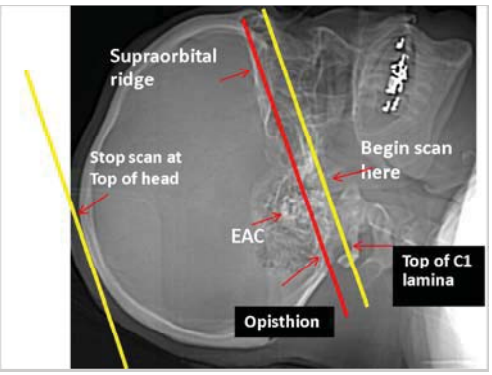
Instructions for Avoiding the Lens of the Eye on Head Exams

For routine head exams where one desires to avoid the lens of the eye:

1. Positioning: Tilt the patients chin toward their chest “tucked position” (or tilt gantry alternatively) to produce a scan angle that is parallel to a line created by the supraorbital ridge and the inner table of the posterior margin of the foramen magnum (opisthion).
2. Helical mode should be used routinely for adult head CT scans. If you cannot move the patient’s head into proper position (trauma, cervical collar, rigid neck) then perform a helical scan with angled axial reformats or perform an axial scan with gantry tilt.
3. Start scans at the top of the C1 lamina and scan through the top of the calvarium.
4. The figure below details the scan ranges



Scan range for routine head imaging if the eye lens is to be avoided (scan from yellow line to yellow line, the red line denotes the bony landmarks you want to get aligned with the scan plane)

We prefer to image the orbits on our head CTs because the orbit is an extension of the brain, and pathology, including the result of trauma, often occult, occurs there. Also, because of radiation overscan inherent in exam acquisition, the orbits receive radiation even on orbit sparing protocols. If your facility feels strongly about avoiding the orbits in scanning, we have included an orbit sparing protocol. Ultimately, it is each individual institution’s and individual radiologist’s decision.