CLINICAL FORM TEMPLATE

Nursing pupil dilation chart

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Print at 100% scale, laminate, and keep it at the bedside. Measure each pupil separately, note the lighting, and compare every entry against the one before it. Escalate any change from baseline rather than waiting for the next round.

PUPIL SIZE REFERENCE SCALE — PRINTS AT ACTUAL SIZE

1–2 mm pinpoint
Check medications, then escalate if sudden

3–5 mm normal
Chart as the baseline for the next shift

6–8 mm dilated
Compare with baseline and other neuro signs

>8 mm fixed and dilated
Phone the medical team now

Diameters in millimeters. Verify print scaling before clinical use; a page scaled to fit will not measure true.

NORMAL RANGE BY LIGHTING CONDITION

Lighting	Normal range	What you should see
Bright light	2–4 mm	Pupils constrict in response to the light stimulus
Average room light	3–5 mm	The baseline most bedside assessments are recorded in
Dim light	4–8 mm	Pupils dilate to admit more light; record the lighting beside the size

PERRLA OBSERVATION RECORD

Date and time	Right size mm	Left size mm	Equal Y / N	Shape round / irreg	Right reaction brisk / slug / fixed	Left reaction brisk / slug / fixed	Accommodation Y / N	Change from baseline	Initials

PERRLA: Pupils Equal, Round, Reactive to Light, Accommodation. OD = right eye, OS = left eye.

QUICK REFERENCE

Abnormal findings, drug effects and escalation

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ABNORMAL PUPIL FINDINGS

Finding	Common causes	Action
Fixed and dilated >8 mm, no light response	Brainstem herniation, severe raised intracranial pressure, cranial nerve III palsy, death	Escalate immediately. Medical emergency
Pinpoint 1–2 mm, reactive	Opioid use, Horner syndrome, pontine hemorrhage	Check the medication chart. Escalate if onset was sudden or other neuro signs are present
Anisocoria >1 mm difference	Physiologic in about 20% of people, Horner syndrome, cranial nerve III palsy, raised pressure	Document the trend. Escalate if new, progressive, or above 2 mm
Sluggish or fixed reactivity	Neurological disease, sedation, medication side effects, early pressure rise	Escalate. Compare with baseline and check other neuro signs
Unequal reactivity one brisk, one sluggish	Focal neurological lesion, optic nerve disease, asymmetric pressure	Escalate for urgent assessment

DRUG EFFECTS ON PUPIL SIZE

Drug or class	Pupil effect	Nursing note
Opioids (morphine, codeine, fentanyl)	Pinpoint pupils (miosis)	Expected effect; pupils stay reactive. Severe overdose may leave them fixed
Anticholinergics (atropine, scopolamine)	Dilated pupils (mydriasis)	Predictable. Reaction may be slow. Used deliberately in eye exams
Stimulants (amphetamines, cocaine)	Dilated pupils (mydriasis)	Often with agitation and hypertension
Benzodiazepines	Slight dilation	Pupils usually stay reactive. Effect is milder than opioid miosis
Sympathomimetics (epinephrine, dopamine)	Dilated pupils (mydriasis)	Infusion related. Pupils stay reactive

ESCALATE IMMEDIATELY WHEN YOU SEE

- A pupil above 8 mm with no response to light, in either eye
- Bilateral fixed pupils
- New anisocoria, or a difference above 2 mm that is widening
- Accommodation that was normal and has become sluggish
- Sudden pinpoint pupils with reduced consciousness, abnormal breathing or posturing
- Any loss of reactivity in a patient who was reactive on the last round

PATIENT DETAILS

PATIENT NAME

PATIENT ID

WARD OR ROOM

BASELINE PUPIL SIZE (R / L)

BASELINE RECORDED BY

OBSERVATION FREQUENCY

NOTES AND ESCALATION RECORD

This chart supports local neurological observation policy. It does not replace it. Follow your own escalation protocol and monitoring frequency.