

## Chapter 17. Herbal Kajal (Kohl) & Eyecare Preparations

### 1 ◀ Why Put Anything on the Water-Line?

Classical Claim ( <i>Suśruta</i> )	Plain English	Modern Plausible Reason
“ <b>Dṛṣṭi-pradā</b> ” – grants clear vision	Keeps eyes moist, glare-free	Ghee + herbal film reduce tear evaporation
“ <b>Netrāñjana</b> ” – beautifies eyes	Dark line makes white look brighter	Optical contrast; light-blocking sooth
“ <b>Rakṣoghna</b> ” – guards against “evil dust”	Antibacterial lamp-soot & herbs	Lab tests: castor-oil soot inhibits <i>Staph.</i>

**Rule #1:** Use LEAD-FREE, pharmaceutical-grade soot only. Never old commercial kohl sticks.

### 2 ◀ Key Ingredients and What They Do

Ingredient	Old-School Tagline	Scientific Note
<b>Castor-oil lamp soot</b>	“Cooling, anti-infective”	Carbon black + ricinoleic acid
<b>Ghee (cow / goat)</b>	Nourishes optic nerve	Rich in vit-A, melts at body temp
<b>Triphala decoction</b>	Cleans “eye heat”	Gallic acid antioxidant
<b>Rose-water</b>	Soothes redness	Mild anti-histamine
<b>Camphor crystal (optional)</b>	Clears watering eyes	Menthol-like cooling, antimicrobial

### 3 ◀ Visual: Traditional Kajal Workflow

(see diagram “Traditional Herbal Kajal Workflow” above)

□□□□ in words:

1. **Lamp** – Cotton wick soaked in castor oil, lit overnight.
2. **Collect soot** – Copper plate coated with ghee inverted 5 cm above flame.
3. **Scrape soot** – Next morning; black velvety deposit forms.
4. **Add media** – Equal weight melted ghee + a few drops rose or Triphala decoction.
5. **Trituration** – Grind 1-2 h in marble mortar until smooth.
6. **Sterilise** – Hold at 100 °C for 30 min or autoclave cream jar, then fill.

(Image shows arrows linking each step for non-Ayurveda learners.)

### 4 ◀ Safety First - Quick Table

Risk	Student-Friendly Fix
Heavy-metal contamination	Use <b>food-grade copper plate</b> & pharma-grade castor oil; test soot with lead kit strip.
Bacterial growth (moist kajal)	Add 0.3 % vitamin-E or 0.2 % phenoxyethanol; always use sterile spatula.
Contact-lens users	Apply <b>outside</b> water-line or use single-dose applicator.
Infants (< 1 yr)	Use plain ghee line, no soot or camphor.



## 5 ◀ Ready-Reference Formulas

Code	Use Case	Composition (100 g)	Dilution
<b>KAJ-Classic</b>	Daily liner	Lamp soot 15 g · Cow ghee 85 g	RTU*
<b>KAJ-Rose-Cool</b>	Red, tired eyes	Lamp soot 12 g · Ghee 70 g · Rose-water concentrate 18 g	keeps 3 m refrigerated
<b>KAJ-Pepper-Guard</b>	Conjunctivitis season†	Lamp soot 10 g · Ghee 80 g · Black-pepper extract 0.2 g	OTC only under supervision

\*RTU = Ready-to-use; †short-term use, patch-test.

## 6 ◀ Beyond Kajal - Two Classroom-Safe Eye-Care Preparations

### 6.1 Rose-Triphala Eye-Wash (Bright-Eyes Jal)

Item	Qty for 100 ml
Triphala coarse	5 g decocted in 200 ml → reduce to 100 ml
Double-filtered Rose-water	50 ml
0.9 % NaCl (sterile)	to make isotonic

Use: 10 ml in eye-cup, blink 20 sec; morning/bedtime. Great after screen time.

### 6.2 Ghee Netra Tarpana (Spa Demo)

Step	Student Explanation
Make donut ring with wheat-dough around eye orbit	"Creates a mini-pool."
Melt 40 °C sterile cow ghee, fill pool until lashes submerged	"Feels weird but safe!"
Ask client to blink gently 3 min	Ghee seeps into tear film; removes dryness
Absorb & discard ghee; wipe with rose-water pad	Instantly brighter whites

## 7 ◀ Quick Interactive Quiz (Slide Poll)

1. Why is **castor oil** preferred over sesame oil for kajal lamp?
2. Which herb blend is **Triphala** made of?
3. Ideal storage life of homemade kajal in fridge? (Answer: ~3 months if sterile.)

### Key Take-Aways

- Kajal = soot + ghee (+ herbal extras). Keep it **lead-free & sterile**.
- **Triphala + Rose** are the "daily water & soap" for eyes.
- Always integrate **screen breaks, palming & blinking**: cosmetics help - habits heal.

**Mantra:** "Cool with ghee, clean with Triphala; let the eyes sparkle like lotus at dawn."