

because the terms are often used and interpreted incorrectly. Periodic or irregular breathing is an ominous sign of brainstem (especially medullary) dysfunction that often precedes complete apnea. The odor of the breath may provide additional clues (e.g., the fruity, acetone odor of ketosis; the foul odor of uremia; the fetid odor of hepatic failure; or the odor of alcohol).

Skin

The skin may offer clues to the cause of unconsciousness. The body surface should be examined for signs of injury, needle marks, petechiae, bites, and ticks. Evidence of toxic substances may be found on the hands, face, mouth, and clothing, especially in small children. In addition, the skin can provide clues of the child's condition. The skin should be evaluated for color (such as pallor, cyanosis, erythema, or jaundice), temperature, and turgor.

Eyes

Assess pupil size and reactivity ([Fig. 27-3](#); see also [Fig. 27-2](#)). Pupils either do or do not react to light. Pinpoint pupils are commonly observed in poisoning, such as opiate or barbiturate poisoning, or in brainstem dysfunction. Widely dilated and reactive pupils are often seen after seizures and may involve only one side. Widely dilated and fixed pupils suggest paralysis of cranial nerve (CN) III (oculomotor nerve) secondary to pressure from herniation of the brain through the tentorium. Bilateral fixed pupils usually imply brainstem damage if present for more than 5 minutes. Dilated and nonreactive pupils are also seen in hypothermia, anoxia, ischemia, poisoning with atropine-like substances, or prior instillation of mydriatic drugs.

Nursing Alert

The sudden appearance of a fixed and dilated pupil(s) is a neurologic emergency.