	Upper respiratory tract infection	Prevent contact with infected persons. Provide adequate hydration. Administer immunizations as necessary (pneumococcal, meningococcal).
Gastrointestinal System		
Distention caused by poor abdominal muscle tone	Interference with respiratory movements	Monitor bowel sounds. Encourage small, frequent feedings.
	Difficulty in feeding in prone position	
No specific primary effect	Possible constipation caused by gravitational effect on feces through ascending colon or weakened smooth muscle tone	Have patient sit in upright position in bedside chair if possible.
		Carry out bowel training program with hydration, stool softeners, increased fiber intake, and mild laxatives if necessary.
	Anorexia	Stimulate appetite with favored foods.
Urinary System		
Alteration of gravitational force	Difficulty in voiding in prone position	Position as upright as possible to void.
Impaired ureteral peristalsis	Urinary retention in calyces and bladder Infection Renal calculi	Hydrate to ensure adequate urinary output for age. Stimulate bladder emptying with warm running water, as necessary. Catheterize only for severe urinary retention. Administer antibiotics as indicated.
Integumentary System		
Altered tissue integrity	Decreased circulation and pressure leading to tissue injury	Turn and reposition at least every 2 to 4 hours. Frequently inspect total skin surface. Eliminate mechanical factors causing pressure, friction, moisture, or irritation. Place on pressure-reduction mattress.
	Difficulty with personal hygiene	Assess ability to perform self-care and assist with bathing, grooming, and toileting as needed. Encourage self-care to potential ability. Ensure adequate intake of protein, vitamins, and minerals.

*Individualize care according to child's needs; interventions may vary in different institutions.

The daily stresses on bone created by motion and weight bearing maintain the balance between bone formation (osteoblastic activity) and bone resorption (osteoclastic activity). During immobilization, increased calcium leaves the bone, causing osteopenia (demineralization of the bones), which may predispose bone to pathologic fractures. A **joint contracture** begins when the arrangement of collagen, the main structural protein of connective tissues, is altered, resulting in a denser tissue that does not glide as easily. Eventually, muscles, tendons, and ligaments can shorten and reduce joint movement, ultimately producing contractures that restrict function. The major musculoskeletal consequences of