strain in the United States and elsewhere. **Horizontal transmission** of HIV occurs through intimate sexual contact or parenteral exposure to blood or body fluids containing visible blood. **Perinatal (vertical) transmission** occurs when an HIV-infected pregnant woman passes the infection to her infant. There is no evidence that *casual* contact between infected and uninfected individuals can spread the virus.

Pathophysiology

The HIV virus primarily infects a specific subset of T lymphocytes, the CD_4^+ T cells, but it can also invade cells of the monocyte-macrophage lineage. The virus takes over the machinery of the CD_4^+ lymphocyte, using it to replicate itself, rendering the CD_4^+ cell dysfunctional. The CD_4^+ lymphocyte count gradually decreases over time, at some point, physical symptoms appear. The count eventually reaches a critical level below which there is substantial risk of opportunistic illnesses, followed by death.

Clinical Manifestations

Common clinical manifestations of HIV infection in children are varied (Box 24-9). The diagnosis of AIDS is associated with certain illnesses or conditions. The most common AIDS-defining conditions observed among American children are listed in Box 24-10. Other problems in these children may include short stature, malnutrition, and cardiomyopathy. CNS abnormalities resulting from HIV infection may include neuropsychologic deficits; developmental disabilities; and deficits in motor skills, communication, and behavioral functioning.

Box 24-9

Common Clinical Manifestations of Human Immunodeficiency Virus Infection in Children

- Lymphadenopathy
- Hepatosplenomegaly