Family socioeconomic status and extent of exposure to other children are the two most important identifiable risk factors for the occurrence of OM (Lieberthal, Carroll, Chonmaitree, et al, 2013).

Box 21-5

Standard Terminology for Otitis Media

Otitis media (OM): An inflammation of the middle ear without reference to etiology or pathogenesis

Acute otitis media (AOM): An inflammation of the middle ear space with a rapid onset of the signs and symptoms of acute infection—namely, fever and otalgia (ear pain)

Otitis media with effusion (OME): Fluid in the middle ear space without symptoms of acute infection

Etiology

Streptococcus pneumoniae, H. influenzae, and *Moraxella catarrhalis* are the three most common bacteria causing AOM. The etiology of noninfectious OM is unknown, but OM may occur because of blocked eustachian tubes, which results in negative ear pressure. Fluid is pulled from the mucosal lining, which accumulates and becomes colonized by infectious organisms. Predisposing factors include URIs, allergic rhinitis, Down syndrome, cleft palate, daycare attendance, exposure to secondhand smoke, and bottle propping during feeding. Infants fed breast milk have a lower incidence of OM than formula-fed infants (Abrahams and Labbok, 2011). Breastfeeding may protect infants against respiratory viruses and allergy because breast milk contains secretory immunoglobulin A, which limits the exposure of the eustachian tube and middle ear mucosa to microbial pathogens and foreign proteins. Reflux of milk up the eustachian tubes is less likely in breastfed infants because of the semivertical positioning during breastfeeding compared with bottle feeding.

Pathophysiology

OM is primarily a result of malfunctioning eustachian tubes.