

ANAEROBIC LUNG ABSCESES (See also Chap. 127) These abscesses result from subacute anaerobic pulmonary infection. The clinical presentation typically involves a history of constitutional signs and symptoms (including malaise, weight loss, fever, night sweats, and foul-smelling sputum) that have typically persisted for 1–3 weeks prior to hospitalization. Patients who develop lung abscesses often, but not always, have an antecedent dental infection. Abscess cavities may be single or multiple and generally occur in dependent pulmonary segments (**Fig. 177-3**). The differential diagnosis for lung abscesses includes pneumonia (including necrotizing pneumonia), a purulent pleural effusion with a bronchopleural fistula, and a pneumatocele. Of note, infection with some aerobic organisms, particularly *S. aureus*, can develop into a lung abscess without an anaerobic component. Approximately 90% of cases have an anaerobe identified—usually three to six isolates per sample—if careful attention is paid to handling and processing of the abscess sample. The most common isolates include peptostreptococci, *Prevotella* and *Porphyromonas* species, and *F. nucleatum*. An important finding is that ~90% of cultures also demonstrate the presence of aerobic organisms, such as *S. aureus*, *Streptococcus pneumoniae*, and *Klebsiella pneumoniae*. Consistent with the notion that anaerobes are contributing to disease, patients often do not improve clinically until they receive an antibiotic regimen that includes anaerobic coverage.