

## Pneumonia in the Immunocompetent Child

Pneumonia (<https://www.radiologyinfo.org/en/info/pneumonia>) is an infection of one or both lungs. Pneumonia may come from the community or from a health care environment; both are common in children. Imaging is not required for otherwise healthy children, 3 months of age or older, with pneumonia.

Chest x-ray (<https://www.radiologyinfo.org/en/info/chestrad>) is usually appropriate as the initial imaging test if community-acquired pneumonia does not respond to treatment, if the child is hospitalized, or if hospital-acquired pneumonia is suspected. Ultrasound (<https://www.radiologyinfo.org/en/info/genus>) (US) chest may also be appropriate.

Pneumonia can be complicated by pleural effusion, a fluid buildup between the lungs and the chest cavity; US is usually appropriate to determine the size and features of fluid buildup and may help guide drainage. Chest x-ray taken lying down may be used to distinguish flows or fluid collection.

Pneumonia can be complicated by suspected bronchopleural fistula, an abnormal communication between the lungs and the chest cavity; CT chest (<https://www.radiologyinfo.org/en/info/chestct>) with intravenous (IV) contrast is usually appropriate. CT chest without IV contrast may also be appropriate.

For pneumonia complicated by suspected lung abscess, or an infected mass, CT chest with IV contrast is usually appropriate. US chest and MRI chest (<https://www.radiologyinfo.org/en/info/chestmr>) without and with contrast may be appropriate.

CT chest without IV contrast is usually appropriate to evaluate for underlying lung disease for children with recurrent nonlocalized pneumonia. For children with recurrent localized pneumonia, CT angiography (<https://www.radiologyinfo.org/en/info/angiact>) chest focused on the heart with IV contrast or CT chest with IV contrast is usually appropriate.

For more information, see the *Pneumonia page* (<https://www.radiologyinfo.org/en/info/pneumonia>).

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