Chest Radiographic Findings in COVID-19
<table>
<thead>
<tr>
<th>COVID Imaging Classification</th>
<th>CXR Appearance</th>
<th>Suggested Impression</th>
</tr>
</thead>
</table>
| Typical                      | • Multifocal peripheral consolidation  
• Multifocal rounded opacities and nodules | Commonly reported imaging features of COVID-19 pneumonia are present. Other processes such as influenza pneumonia and organizing pneumonia, as can be seen with drug toxicity and connective tissue disease, can cause a similar imaging pattern. |
| Indeterminate                | • Multifocal non peripheral consolidation | Imaging features can be seen with COVID-19 pneumonia, though are nonspecific and can occur with a variety of infectious and noninfectious processes. |
| Atypical                     | • Focal lobar consolidation  
• Pleural effusion  
• Perihilar interstitial opacities  
• Bronchial wall thickening  
• Atelectasis  
• Lymphadenopathy | Imaging features are atypical or uncommonly reported for COVID-19 pneumonia. Alternative diagnoses should be considered. |
| Negative                     | • No CXR findings of pneumonia  
• Edema | No CXR findings present to indicate pneumonia. Note that CXR may be negative in the early stages of COVID-19. |

Timeline of Radiographic Findings

• Studies have shown ground glass opacities to develop on CT between days 0-4 of symptom onset with a peak between 6-13 days.

• CXR typical appearance, as shown here, is in early disease.
Typical – COVID-19+
Typical – COVID-19+

Peripheral and lower lobe predominant rounded airspace opacities
Typical – COVID-19+
Typical – COVID-19+

Multifocal rounded opacities and nodules
Typical – COVID-19+
Typical – COVID-19+

Multifocal rounded opacities and nodules
Indeterminate Appearance
Indeterminate Appearance – COVID-19+
Indeterminate Appearance – COVID-19+

Multifocal non-peripheral airspace opacities
Atypical Appearance – COVID-19+
Atypical Appearance – COVID-19+

Bronchial wall thickening without peripheral airspace opacities
Atypical Appearance – NOT COVID-19+
Atypical Appearance – NOT COVID-19+
Note

• Routine screening CT for diagnosis or exclusion of COVID-19 is currently **NOT** recommended by most professional organizations or the US Centers for Disease Control and Prevention.

• **Negative CXR does not exclude a diagnosis of COVID-19**
References/Resources


