**CT Scans in COVID-19 Detection**

1. **Identifying Lung Involvement**:
   * COVID-19 primarily affects the respiratory system, and **CT scans** can detect lung abnormalities caused by the virus, such as:
     + Ground-glass opacities (hazy areas in the lungs)
     + Consolidations (fluid-filled lung tissues)
     + Crazy paving patterns (thickened interlobular septa combined with ground-glass opacities)
   * These patterns are common signs of **viral pneumonia** linked to COVID-19.
2. **Monitoring Disease Progression**:
   * CT scans help assess how much of the lung is affected, which can indicate the severity of the infection.
   * They are useful in monitoring whether the disease is progressing or improving with treatment.
3. **When PCR Tests Are Inconclusive**:
   * CT scans served as an auxiliary diagnostic tool when **RT-PCR tests** (gold standard for COVID-19 detection) were inconclusive or unavailable, especially in early cases.
4. **Differentiating Between Other Conditions**:
   * CT imaging can help distinguish COVID-related pneumonia from other types of respiratory infections, aiding in accurate diagnosis and treatment.

**Severity Assessment**:

* **CT Severity Score (CTSS)**: Radiologists calculate a severity score based on the extent of lung involvement. Higher scores indicate more severe disease.
* This information helps doctors decide on hospitalization or ICU admission.

**Common Symptoms**

1. **Fever** or chills
2. **Cough** (dry or productive)
3. **Shortness of breath** or difficulty breathing
4. **Fatigue**
5. **Muscle or body aches**
6. **Headache**
7. **Loss of taste or smell** (anosmia)
8. **Sore throat**
9. **Congestion** or runny nose
10. **Nausea** or vomiting
11. **Diarrhea**

**Severe Symptoms**

These may require urgent medical attention:

1. Difficulty breathing or severe shortness of breath
2. Persistent chest pain or pressure
3. Confusion or inability to stay awake
4. Bluish lips or face
5. Oxygen saturation levels dropping below 90% (hypoxia)

**Less Common Symptoms**

1. **Skin rashes** or discoloration on fingers or toes (COVID toes)
2. **Pink eye** (conjunctivitis)
3. **Loss of appetite**
4. **Dizziness** or vertigo
5. **Swollen lymph nodes**

**Symptoms in Different Groups**

1. **Children**:
   * Typically mild or asymptomatic
   * Can develop **MIS-C (Multisystem Inflammatory Syndrome in Children)** with symptoms like fever, rash, abdominal pain, and inflammation.
2. **Elderly**:
   * Higher likelihood of severe symptoms such as difficulty breathing, confusion, and fatigue.
   * Pre-existing conditions may exacerbate the illness.
3. **Immunocompromised Individuals**:
   * Slower symptom onset
   * Higher risk of complications and prolonged illness.