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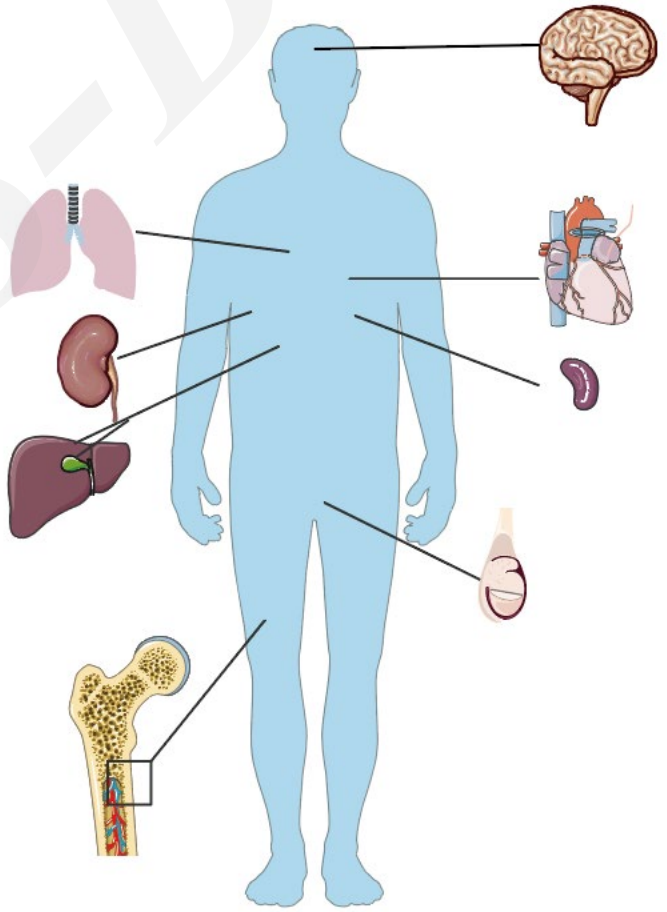
Structural and physiological changes of the human body upon SARS-CoV-2 infection

Key words: COVID-19; Pathological changes; Pathogenesis

Research Summary

This review mainly focused on physiological changes in various systems of the human body caused by novel coronavirus infection, including：

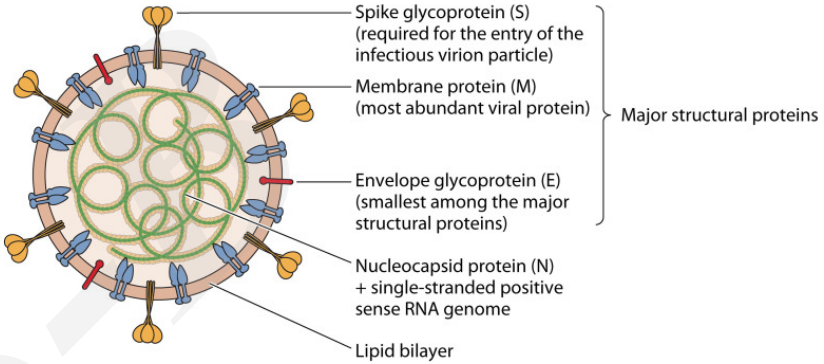
- **Respiratory system**
- **Circulatory system**
- **Digestive system**
- **Urinary system**
- **Nervous system**
- **Reproductive system**
- **Hematopoietic system**
- **Immune system**



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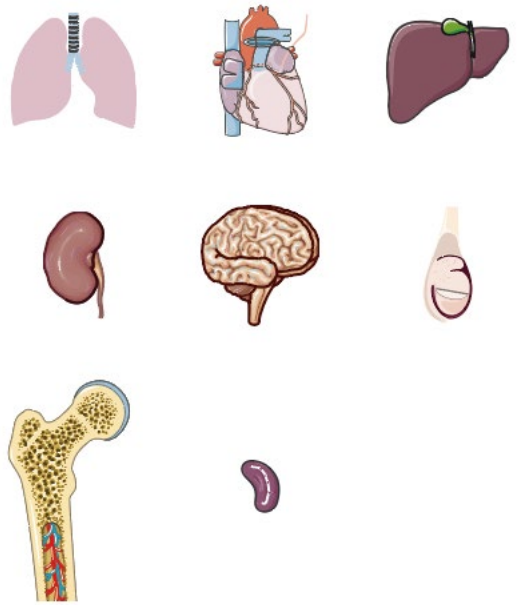
Innovation points

- **Introduction of biological traits of coronavirus and pathogenesis of novel coronavirus infection**



Clin Microbiol Rev. 2020 Jun 24; 33(4): e00028-20.

- **Summary of main pathological changes after SARS-CoV-2 infection in different organs.**



Innovation points

A comprehensive table was generated to summarize the main pathological changes after SARS-CoV-2 infection.

Table 1 | The main pathological changes after SARS-CoV-2 infection in different organs.

Organs	Main pathological changes after SARS-CoV-2 infection
Lung	Inflammatory lesions; Different degrees of diffuse alveolar damage (DAD)
Heart	Procoagulant state and thrombosis
liver	Hepatocyte degeneration and necrosis, neutrophil and lymphocyte infiltration
Gallbladder	Gallbladder filling and mucosal epithelial exfoliation
Kidney	Glomerular segmental hyperplasia or necrosis; Diffuse damage to the proximal tubules; Transparent tube type common in distal tubules; Inflammatory cell aggregation
Brain	Different degrees of cerebral congestion and edema; Some neurons ischemic, degenerative, and infarcted; Inflammatory cell aggregation; Disorders of smell, taste, or respiratory center
Testes	Reduction and injury of parenchymal and stromal cells; Mild inflammation
Hematopoietic system	Reduction or proliferation of red blood cells, bone marrow cells and megakaryocytes
Spleen	Hemorrhage and anemia infarction; Atrophied, shrunk or absent splenic nodules; Lymphocyte degeneration and necrosis