Eat Well, Live Healthy during COVID-19 Pandemic

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Clinical symptoms

- Cough
- Pharyngalgia
- Expectoration
- Sneeze or nasal congestion
- Dyspnea
- Chest pain
- Shortness of breath
- Anorexia
- Diarrhea
- Nausea or vomiting
- Headache
- Fever
- Fatigue
- Malaise
- Muscle aches
- Arthralgia
Nearly All Patients Hospitalized With Covid-19 Had Chronic Health Issues, Study Finds
What helps COVID-19 kill us

The Louisiana Department of Health and Hospitals has started including in its daily update a list of the underlying conditions, by percentage, of the 185 patients in the state who died from COVID-19. Many had several underlying conditions.
Course of COVID-19 Infection

- Stage 1: asymptomatic
- Stage 2: non-severe symptomatic
- Stage 3: severe respiratory-inflammatory

Severity of Illness

Viral response phase

Hyperinflammatory phase
Cytokine Storm

Time Course
SARS-CoV-2

Spike (S) protein

anti-ACE-2 antibody

Cell membrane

Transmembrane ACE-2

Infection
1. CoV binds ACE2 cell-surface receptors of epithelial cells in the respiratory tract through its Spike proteins.

2. CoV-receptor binding mediates proteolytic cleavage followed by fusion with the host cell membrane.

3. Viral RNA is released into the host cell cytoplasm, where viral nucleoproteins uncoat.

4. Viral RNA is translated to produce unglycosylated proteins.

5. Proteins are trafficked through the Golgi body where they are glycosylated.

6. Viral capsids assemble from viral RNA and N protein in the cytoplasm.

7. Vesicles fuse with the cell membrane and release CoV virions into the lumen.
The diagram illustrates the conversion of Angiotensinogen to Angiotensin II through the actions of Renin and ACE, leading to various physiological effects in different organs:

**Blood vessel**
- Vasoconstriction
- SMC hypertrophy
- Superoxide generation
- Endothelin secretion
- Monocyte activation
- Inflammatory cytokines
- Reduced fibrinolysis

**Kidney**
- Sodium and water retention
- Efferent arteriolar vasoconstriction
- Glomerular and interstitial fibrosis

**Heart**
- Cellular hypertrophy
- Myocyte apoptosis
- Myocardial fibrosis
- Inflammatory cytokines
- Coronary vasoconstriction
- Positive inotropy
- Proarrhythmia

**Adrenal gland**
- Aldosterone secretion

**Brain**
- Vasopressin secretion
- Sympathetic activation
Transmission probability is 70% from COVID 19 Carrier (without mask) to Healthy contact (with mask).

Transmission probability is 5% from COVID 19 Carrier (with mask) to Healthy contact (without mask).

Transmission probability is 1.5% from COVID 19 Carrier (with mask) to Healthy contact (with mask).

Please refuse to relate closely with anyone not wearing a face mask.

Any type of facemask will do.
Food Safety
Protein

- Provides the building blocks for most of the body's tissues, nerves, internal organs
- Essential to improve immune system
- Used to make neurotransmitters
Protein

Chicken

Fish

Turkey

Eggs

Legume

Protein Powder
How much?

• **Goal:** >20g per meal
• **Half animal + ½ plant based**
Coronavirus Pandemics
Sources of Antioxidants

- Purple Grape
- Acai Berry
- Pomegranate
- White Grape
- Bilberry
- Passion Fruit
- Wolfberry
- Blueberry
- Kiwi
- Cranberry
- Camu Camu
- Aronia
- Nashi
- Prune
- Apricot
- Pear
- Banana
- Acerola
Colors Represents Nutrients

- Carbohydrates
- Vitamins
- Minerals
- Phytonutrients
- Fibers
- Prebiotics
Healthy Meals
These have some evidence for cold/flu, but COVID-19 is a different condition and applicability is unknown.

**Vitamin C**

**Vitamin D**

**Zinc lozenges**
Stress eating

A Candy Bar would make me feel better!
Stay Active!
Sleep well!
Reduce stress!
U: unlimited vegetables
C: controlled starch/fats
L: lean protein
A: activity

ClinicalNutrition.ucla.edu
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<td>The Inflamed Body</td>
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<td>Tuesday, April 21 at 3pm</td>
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<td>Tuesday, April 28 at 3pm</td>
<td>Eat Well, Live Healthy During COVID-19</td>
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