

Name of Journal: *World Journal of Diabetes*

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COVID-19 and hyperglycemia/diabetes

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Abstract

In early studies regarding COVID-19, type 2 diabetes mellitus (T2DM) was considered to contribute substantially to the disease's inflammatory response. Later on, even hyperglycemia, regardless of insulin resistance or DM, was found to be additionally harmful. Recent studies show inflammation of the pancreatic beta cells in COVID-19, even leading to new onset DM. We hereby try to summarize core literature on glycemia and COVID-19, presenting along the relevant - tentatively - implicated pathways/mechanisms.

Match Overview

1	Internet 106 words crawled on 26-Oct-2020 dom-pubs.onlinelibrary.wiley.com	4%
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[Clinical Study of Hyperglycemia and SARS-CoV-2 Infection ...](#)

<https://pubmed.ncbi.nlm.nih.gov/32871848>

Conclusion: In our series of ICU patients with SARS-CoV-2 infection, and no history of **diabetes**, a substantial number of patients had **hyperglycemia**, to a higher degree than would be expected by the stress of critical illness, lending credence to reports that speculated a tentative association between SARS-CoV-2 and **hyperglycemia**. This finding is important, since **hyperglycemia** can lead to further ...

Cited by: 5

Author: Ioannis Ilias, Edison Jahaj, Stylianos Kok...

Publish Year: 2020

[Hyperglycemia in diabetes - Symptoms and causes - Mayo ...](#)

<https://www.mayoclinic.org/diseases-conditions/...> ▾

Overview

Symptoms

Causes

Risk Factors

Complications



High blood sugar (hyperglycemia) affects people who have diabetes. Several factors can contribute to hyperglycemia in people with diabetes, including food and physical activity choices, illness, nondiabetes medications, or skipping or not taking enough glucose-lowering medication. It's important to treat hyperglycemia, because if left untreated, hyperglycemia can become severe and lead to serious complications requiring emergency care, such as a diabetic coma. In the long term, persistent hype...

[See more on mayoclinic.org](#)

Published: Jun 27, 2020

Missing: [Coronaviridae](#) | Must include: [Coronaviridae](#)

[Eyes on Coronavirus - Abstract - Europe PMC](#)

<https://europepmc.org/article/PMC/PMC7838582> ▾

Jan 27, 2021 - DR is one of serious complications of **diabetes**. Yang et al. verified that **diabetes** and **hyperglycemia** are independent predictors of SARS infected patients' mortality and morbidity (Yang et al., 2006). Two main reasons have contributed to the susceptibility of diabetics to virus infection.

[Potential mechanisms of cerebrovascular diseases in COVID ...](#)

<https://europepmc.org/article/PMC/PMC7856859> ▾

Diabetes is an independent risk factor for stroke, which is closely related to the mechanisms underlying **hyperglycemia** or glucose fluctuation, and it could promote the occurrence and development of atherosclerosis (Dahl-Jørgensen et al. 2005; Johnston et al. 2019; Poznyak et al. 2020).



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Clinical Features of COVID-19 Patients with Diabetes and ...

<https://pubmed.ncbi.nlm.nih.gov/33062712>

This study aims to investigate the clinical characteristics of COVID-19 patients with **diabetes and secondary hyperglycemia**, as well as to explore the purported mechanisms. 80 confirmed COVID-19 subjects were classified into the euglycemia group, secondary hyperglycemia group, and diabetes group.

Cited by: 2**Author:** Wan Zhou, Shandong Ye, Wei Wang, Sumei ...**Publish Year:** 2020

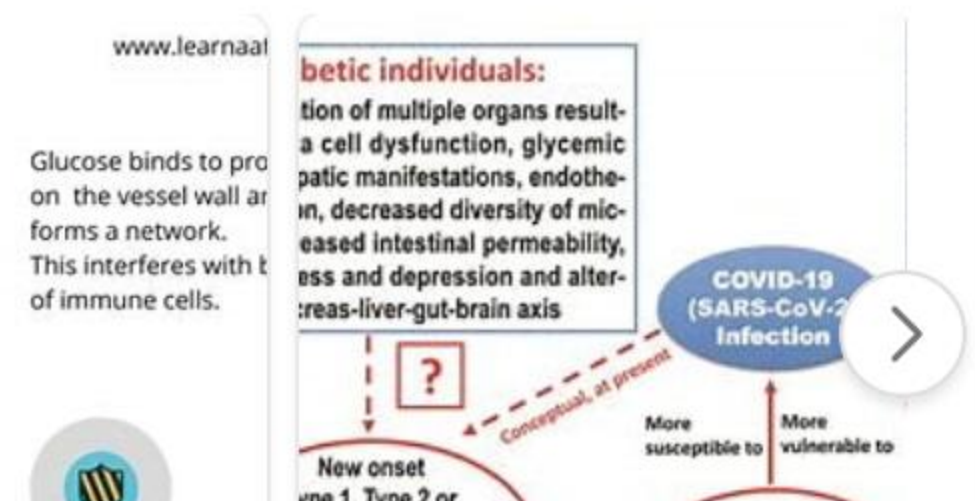
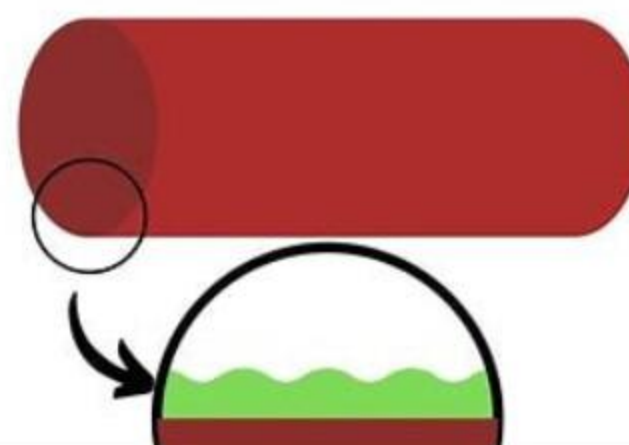
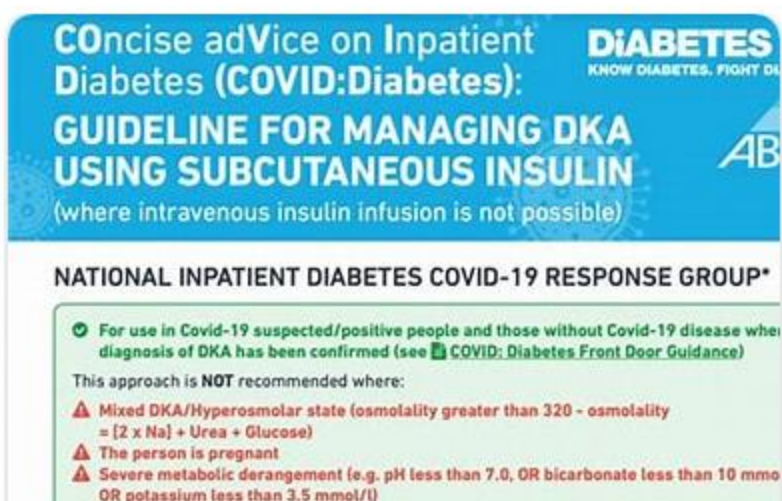
Glycemic Characteristics and Clinical Outcomes of COVID-19 ...

<https://pubmed.ncbi.nlm.nih.gov/32389027>

Conclusion: Among hospitalized patients with COVID-19, diabetes and/or uncontrolled hyperglycemia occurred frequently. These COVID-19 patients with diabetes and/or uncontrolled hyperglycemia had a longer LOS and markedly higher mortality than patients without diabetes or uncontrolled hyperglycemia.

Cited by: 223**Author:** Bruce Bode, Valerie Garrett, Jordan Messle...**Publish Year:** 2020

Images of COVID-19 and Hyperglycemia/diabetes

<bing.com/images>

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Clinical Features of COVID-19 Patients with Diabetes and ...

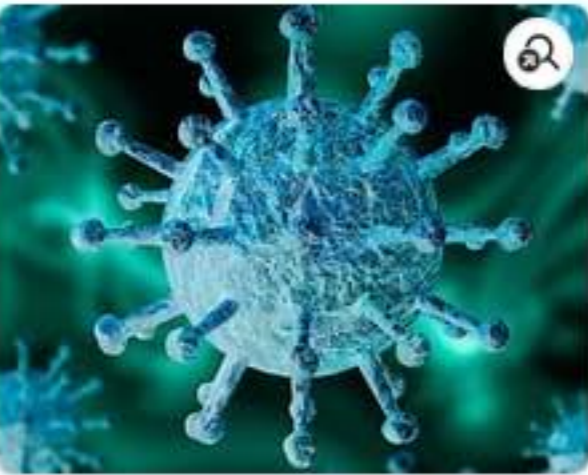
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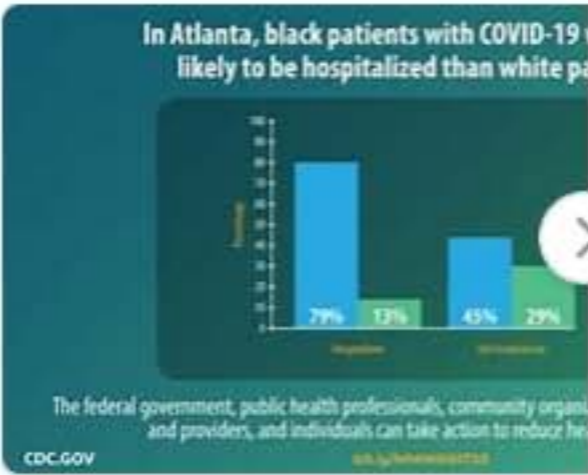
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Journal of the American Podiatric Medical Association <https://doi.org/10.7547/20-C-001>

Type of Service	Description	HCPCS/ E&M Codes	Relationship with Provider
Medicare Telehealth Visit	Visit between a provider and a patient using a telecommunication system	99201-5 99211-5	New or Established Patients
Virtual Check-In	First 20-30 minute check-in with the provider by telephone or other telecommunication device to decide if an office visit is needed. (If an evaluation of limited value or images from a patient)	G2012 G2010	Established Patient
E-Visit	Communication between a patient and provider through an online patient portal	99421-3 G2061-3	Established Patient
Remote Patient Monitoring	Remote monitoring of a physiologic parameter, e.g., foot skin temperature	99453-4,7	Established Patient



See all images >

Outcomes in Patients With Hyperglycemia Affected by COVID ...

<https://pubmed.ncbi.nlm.nih.gov/32430456>

Research design and methods: Fifty-nine patients with **COVID-19** hospitalized with moderate disease were evaluated. On the basis of admission glycemia >7.77 mmol/L, patients were divided into **hyperglycemic and normoglycemic groups**. Interleukin 6 (IL-6) and D-dimer levels were evaluated at admission and weekly during hospitalization.

Cited by: 117 Author: Celestino Sardu, Nunzia D'Onofrio, Maria L...
Publish Year: 2020

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<https://pubmed.ncbi.nlm.nih.gov/32389027>

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