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Association between population vitamin D status and SARS-CoV-2 related serious-critical illness and deaths: An ecological integrative approach

Papadimitriou *et al.* Population vitamin D status and COVID-19 disease

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Abstract

BACKGROUND

Vitamin D population status may have possible unappreciated consequences to the coronavirus disease 2019 (COVID-19) pandemic. A significant association between vitamin D sufficiency and reduction in clinical severity and inpatient mortality from

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Author: Aida Santaolalla, Kerri Beckmann, Ke... Publish Year: 2020

(PDF) Exploring links between vitamin D deficiency and ...

<https://www.researchgate.net/publication/344318551>...

Sep 18, 2020 · A potential protective role of vitamin D serum levels on overall adverse outcomes of SARS-CoV-2 infection or COVID-19 on populations had ...

Nutrients | Free Full-Text | Evidence Regarding Vitamin D ...

<https://www.mdpi.com/2072-6643/12/11/3361/htm> ▾

The finding that the SARS-CoV-2-positive rate in the U.S. varied from 6.5% for 25(OH)D concentration between 40 and 50 ng/mL to approximately 11.3% for 25(OH)D = 20 ng/mL may be due to the effect of vitamin D in reducing survival and replication of the virus by induction of cathelicidin and defensins as well as by increasing concentrations of ...

Cited by: 7 Author: Joseph Mercola, William B. Grant, Carol ...

Publish Year: 2020

Bidirectional Association Between COVID-19 and the ...

<https://www.sciencedirect.com/science/article/pii/S0013935120315917>

Dec 29, 2020 · 1. Introduction. COVID-19 pandemic has had the most extensive impact on human health on a global scale since the first two decades of the 21st century. On 30th January 2020 World Health Organization (WHO) expressed concern about the spread of COVID-19 for public health. Earlier than that, on 3rd December 2019, a pneumonia-like syndrome of an unidentified source was reported in Wuhan ...

Author: Nayereh Rezaie Rahimi, Reza Fouladi... Publish Year: 2020

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Nov 26, 2020 · Review of search “A” studies found no direct evidence of any **association between vitamin D and** risk or severity of COVID-19; however, our literature review identified three main themes of indirect evidence supporting an **association for vitamin D and SARS-CoV-2** exposure: (1) an **association of vitamin D** deficiency with increased incidence and severity of **respiratory infections** (including 12 research studies exploring ARDS/ARI, Table 4), (2) overlapping biological mechanisms of ...

Cited by: 2

Author: Aida Santaolalla, Kerri Beckmann, Kerri Bec...

Publish Year: 2020

[Association of Vitamin D Status and Other Clinical ...](#)

<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2770157> ▾

Sep 03, 2020 · Meaning These findings appear to support a role of **vitamin D status** in COVID-19 risk; randomized clinical trials are needed to determine whether broad **population** interventions and interventions among groups at increased risk of **vitamin D** deficiency and ...

Cited by: 76

Author: David O. Meltzer, Thomas J. Best, Hui Zhan...

Publish Year: 2020

[Vitamin D and SARS-CoV-2 virus/COVID-19 disease | BMJ ...](#)

<https://nutrition.bmj.com/content/early/2020/05/13/bmjnp-2020-000089> ▾

May 13, 2020 · Epidemiological studies in children have found a strong **association between** URTI and rickets. 28 A large cross-sectional study of the US **population** reported that URTI infections were higher in

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Nov 26, 2020 · Objectives To assess the **association between vitamin D** deficiency and increased morbidity/mortality with COVID-19 respiratory dysfunction. Design Scoping review. Data Sources Ovid MEDLINE (1946 to 24 of April 2020) and PubMed (2020 to 17 of September 2020). Eligibility Criteria for Selecting Studies A search using the search terms: [(cholecalciferol or ergocalciferol or **vitamin D**2 or **vitamin** ...

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As the world's attention has been riveted upon the growing COVID-19 pandemic, many researchers have written brief reports supporting the hypothesis that **vitamin D** deficiency is **related** to the incidence and severity of COVID-19. The clear common thread among the top risk groups—**vitamin D** deficiency—may be being overlooked because of previous overstated claims of **vitamin D** benefits.

Cited by: 30

Author: Linda L Benskin

Publish Year: 2020

[\(PDF\) A Basic Review of the Preliminary Evidence that ...](#)

https://www.academia.edu/44087460/A_Basic_Review... ▾

(8) The strong correlation **between** the risk factors for increased severity of COVID-19 and **vitamin D** deficiency led them to prospectively evaluate **vitamin D** levels in 33 hospitalized COVID-19 pneumonia patients who were all in respiratory failure (study details in section 3.4.4). (8) Figure 1 :1Study Authors' Supplementation Support by Country 8 ...

[Assessing Risk Factors for Severe COVID-19 Illness | CDC](#)

<https://www.cdc.gov/coronavirus/2019-ncov/covid...> ▾

Nov 30, 2020 · Reduce your risk for severe COVID-19 **illness** by managing any conditions you have that are risk factors. How We Learn about Risk Factors for Severe Disease Because COVID-19 is a new disease, more work is needed to better understand the risk factors for severe **illness** or complications.

[NKF Clinical Digest - COVID-19 | National Kidney Foundation](#)

<https://www.kidney.org/professionals/clinical-digest> ▾

Vitamin D is a known immune system booster and **vitamin D** supplementation has previously been shown