

**Name of Journal:** *World Journal of Gastroenterology*

**Manuscript NO:** 63524

**Manuscript Type:** MINIREVIEWS

**Gastrointestinal involvement in paediatric COVID-19 – from pathogenesis to clinical management: A comprehensive review**

Calitri C. *et al.* Gastrointestinal involvement in paediatric COVID-19

### Abstract

SARSCoV2, the causative agent of the Coronavirus disease 2019 (COVID-19) is responsible for the first pandemic of the 21<sup>st</sup> century. As found in adults, signs and symptoms related to the disease mainly involve the respiratory tract in the paediatric population. However, there are a considerable number of children presenting with gastrointestinal symptoms, such as vomiting, abdominal pain and diarrhea. The purpose of this review is an accurate description, from pathogenesis to clinical presentation, diagnosis and treatment, of COVID-19 effects on the gastrointestinal

### Match Overview

|   |   |      |
|---|---|------|
| 1 | <b>Internet</b> 251 words<br>crawled on 26-Jan-2021<br><a href="http://indianpediatrics.net">indianpediatrics.net</a>   | 4%   |
| 2 | <b>Internet</b> 164 words<br><a href="http://www.ncbi.nlm.nih.gov">www.ncbi.nlm.nih.gov</a>   | 3%   |
| 3 | <b>Internet</b> 81 words<br>crawled on 05-Nov-2020<br><a href="http://onlinelibrary.wiley.com">onlinelibrary.wiley.com</a>  | 1%   |
| 4 | <b>Crossref</b> 77 words<br><a href="#">Emanuele Nicastro, Angelo Di Giorgio, Marco Zambelli, Marco Ginammi et al. "Impact of the SARS-CoV-2 outbreak (..."</a>     | 1%   |
| 5 | <b>Crossref</b> 74 words<br><a href="#">Serena Arrigo, Patrizia Alvisi, Claudia Banzato, Matteo Bramuzzo et al. "Impact of COVID-19 pandemic on the manag</a>       | 1%   |
| 6 | <b>Crossref</b> 70 words<br><a href="#">Jamie Zhen, Juan Pablo Stefanolo, Maria de la Paz Temprano, Sebastian Tedesco et al. "The Risk of Contracting C ...</a>     | 1%   |
| 7 | <b>Crossref</b> 55 words<br><a href="#">Daniele Doná, Juan Torres Canizales, Elisa Benetti, Mara Cananzi et al. "Pediatric transplantation in Europe during ...</a> | 1%   |
| 8 | <b>Crossref</b> 55 words<br><a href="#">Francesca Fiori Nastro, Carlo Tolone, Maria Rosaria Serra, Daniela Pacella, Angelo Campanozzi, Caterina Strisciuglio.</a>   | 1%   |
|   | <b>Internet</b> 54 words  | 1.0% |





ALL

IMAGES

VIDEOS

879,000 Results

Any time ▾

## Frontiers | SARS-CoV-2 and the Gastrointestinal Tract in ...

<https://www.frontiersin.org/articles/10.3389/fped.2021.617980> ▾

Coronavirus disease 2019 (COVID-19), caused by acute respiratory syndrome coronavirus 2 (SARS-CoV-2), is predominantly a respiratory disease. However, its significant impact on the **gastrointestinal** (GI) system is now well-known. SARS-CoV-2 enters cells via the angiotensin-converting enzyme-2 (ACE-2) receptor, which is abundantly expressed on lung cells, but also on enterocytes.

## Gastrointestinal Symptoms in Severe COVID-19 Children ...

[https://journals.lww.com/pidj/Fulltext/2020/10000/...](https://journals.lww.com/pidj/Fulltext/2020/10000/)

Having GI symptoms was more frequently associated with severe and critical phenotype ( $P = 0.029$ ). Interestingly, a history of GI symptoms was positively associated with cardiac involvement as clinical complications, in presence of other symptoms ( $P = 0.007$ ) or alone ( $P = 0.004$ ).

## Gastrointestinal manifestations of COVID-19 | Cleveland ...

<https://www.ccjm.org/content/early/2020/06/16/ccjm.87a.ccc049> ▾

Jun 18, 2020 · Gastrointestinal (GI) symptoms are seen in patients with COVID-19. The prevalence could be as high as 50%, but most studies show ranges from 16% to 33%. Presenting with GI symptoms increases the risk of testing positive for SARS-CoV-2. Approximately 50% of patients with COVID-19 have detectable virus in their stool.

Cited by: 5

Author: Sara El Ouali, Jean-Paul Achkar, Bret La...

Publish Year: 2020

## Covid-19 and the digestive system - Wong - 2020 - Journal ...

<https://onlinelibrary.wiley.com/doi/10.1111/jgh.15047>

Mar 25, 2020 · In another study that investigated viral shredding in **pediatric Covid-19 patients**, diarrhea was observed in 3 out of the 10 **infected children**. 3 Although different clinical features, such as a milder disease course 14 and less respiratory symptoms 3 have been proposed in **Covid-19 children**, the **gastrointestinal symptoms** appear to be similar, although more clinical data are needed to arrive at ...

Cited by: 347

Author: Sunny H. Wong, Rashid N.S. Lui, Joseph...

Publish Year: 2020

## Pathophysiology of COVID-19: Mechanisms Underlying ...





ALL

IMAGES

VIDEOS

1,000,000 Results

Any time ▼

## Frontiers | SARS-CoV-2 and the Gastrointestinal Tract in ...

<https://www.frontiersin.org/articles/10.3389/fped.2021.617980> ▼

Coronavirus disease 2019 (COVID-19), caused by acute respiratory syndrome coronavirus 2 (SARS-CoV-2), is predominantly a respiratory disease. However, its significant impact on the **gastrointestinal** (GI) system is now well-known. SARS-CoV-2 enters cells via the angiotensin-converting enzyme-2 (ACE-2) receptor, which is abundantly expressed on lung cells, but also on enterocytes.

**Author:** Maria Giovanna Puoti, Anna Rybak, Fevr... **Publish Year:** 2021

## Implications of SARS-COV-2 infection in the diagnosis and ...

<https://ijponline.biomedcentral.com/articles/10.1186/s13052-021-01020-9> ▼

**Gastrointestinal** diseases such as celiac disease, functional **gastrointestinal** disorders (FGIDs), inflammatory bowel disease (IBDs) and acute or chronic diarrhea are quite frequent in the **pediatric** population. The approach, the diagnosis and **management** can be changed in the 2019 coronavirus disease (**COVID-19**) pandemic era. This **review** has focused on: i) the current understanding of ...

## Pathophysiology of COVID-19: Mechanisms Underlying Disease ...

<https://journals.physiology.org/doi/full/10.1152/physiol.00019.2020>

Aug 12, 2020 · The **involvement** of the **gastrointestinal** (GI) tract and hepatic system in **COVID-19** disease progression is being increasingly reported. The most common GI manifestations reported in both adult and especially **pediatric COVID-19** patients include diarrhea, nausea, vomiting, and ...

**Cited by:** 16

**Author:** Mary Kathryn Bohn, Alexandra Hall, Lusia S...

**Publish Year:** 2020

## Cardiac manifestations in SARS-CoV-2-associated ...

<https://pubmed.ncbi.nlm.nih.gov/32803422>



[ALL](#)
[IMAGES](#)
[VIDEOS](#)
[MAPS](#)
[NEWS](#)
[SHOPPING](#)

1,470,000 Results    Any time ▾

## [Pathophysiology of COVID-19: Mechanisms Underlying Disease ...](#)

<https://journals.physiology.org/doi/full/10.1152/physiol.00019.2020>

Aug 12, 2020 · The **involvement** of the **gastrointestinal (GI)** tract and hepatic system in **COVID-19** disease progression is being increasingly reported. The most common **GI** manifestations reported in both adult...

**Cited by:** 22      **Author:** Mary Kathryn Bohn, Alexandra Hall, Lusia S...

**Publish Year:** 2020

## [Frontiers | SARS-CoV-2 and the Gastrointestinal Tract in ...](#)

<https://www.frontiersin.org/articles/10.3389/fped.2021.617980> ▾

[Introduction](#)
[Materials and Methods](#)
[Sars-Cov-2 and Gastrointestinal...](#)

The severe acute respiratory syndrome-coronavirus-2 (SARS-CoV-2) was first identified in patients with a severe form of pneumonia in Wuham province in December 2019 (1). Since its global spread, SARS-CoV-2 has been recognized as the etiological agent of coronavirus disease 2019 (COVID-19), the presentation of which ranges from asymptomatic or mild respiratory symptoms to severe lung injury, multi-organ failure and death. Although it is commonly known as a respiratory illness, it is now evident that it can also affe...

[See more on frontiersin.org](#)

**Author:** Maria Giovanna Puoti, Anna Rybak, Fevr...      **Publish Year:** 2021

## [Gastrointestinal manifestations in COVID-19](#)

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7989191>

The majority of **COVID-19**-associated **GI** symptoms are mild and self-limiting and include anorexia, diarrhoea, nausea, vomiting and abdominal pain/discomfort (Table 2). 15,16,21,22,38–60 In some...

**Author:** Jayani C Kariyawasam, Umesh Jayaraja...      **Publish Year:** 2021

## [COVID-19 pathophysiology: A review](#)

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7169933>

Apr 20, 2020 · 2. Epidemiological data of **COVID-19**. A large number of studies so far are reports based on experiences in China. At the beginning of the outbreak, **COVID-19** cases were mostly observed amon...

**Cited by:** 570      **Author:** Koichi Yuki, Miho Fujiogi, Sophia Koutsogia...

**Publish Year:** 2020