

The Institute for Functional Medicine - doses for Natural Supplements

Nutraceutical and Botanical Recommendations for Patients

Glutathione

Endogenous Deficiency of Glutathione as the Most Likely Cause of Serious Manifestations and Death in COVID-19 Patients
ACS Infectious Disease, May 2020

The Role of Glutathione in Protecting against the Severe Inflammatory Response Triggered by COVID-19
Antioxidants, July 2020

Paracetamol-Induced Glutathione Consumption: Is There a Link With Severe COVID-19 Illness?
Frontiers in Pharmacology, October 2020

Could glutathione depletion be the Trojan horse of COVID-19 mortality?
Eur Rev Med Pharmacology Science, 2020

The Role of Glutathione in Protecting against the Severe Inflammatory Response Triggered by COVID-19
Antioxidants, 2020

Glutathione Supplementation as an Adjunctive Therapy in COVID-19
Antioxidants, 2020

Impact of Zinc, Glutathione, and Polyphenols as Antioxidants in the Immune Response against SARS-CoV-2
Processes, March 2021

Efficacy of glutathione therapy in relieving dyspnea associated with COVID-19 pneumonia: A report of 2 cases
Immunology Network

Vitamin D

Vitamin D and COVID-19: why the controversy?
The Lancet, February 2021

Vitamin D supplementation for the treatment of COVID-19: a living systematic review
Cochrane Library, May 2021

Vitamin D deficiency is associated with COVID-19 positivity and severity of the disease
Journal of Medical Virology, May 2021

The link between COVID-19 and Vitamin D (VIVID): A systematic review and meta-analysis
Metabolism, June 2021

Vitamin A, D, E, K

Fat-Soluble Vitamins and the Current Global Pandemic of COVID-19: Evidence-Based Efficacy from Literature Review

Zinc

Zinc, Vitamin D and Vitamin C: Perspectives for COVID-19 With a Focus on Physical Tissue Barrier Integrity

Frontiers in Nutrition, December 2020

Effect of High-Dose Zinc and Ascorbic Acid Supplementation vs Usual Care on Symptom Length and Reduction Among Ambulatory Patients With SARS-CoV-2 Infection

JAMA Open Network, Feb 2021

Serum vitamin D, calcium, and zinc levels in patients with COVID-19

Clinical Nutrition Espen, April 2021

Zinc, Vitamin D and Vitamin C: Perspectives for COVID-19 With a Focus on Physical Tissue Barrier Integrity

Frontiers in Nutrition, December 2020

Immune-boosting role of vitamins D, C, E, zinc, selenium and omega-3 fatty acids: Could they help against COVID-19?

Maturitas, January 2021

Potential Role of Vitamins and Zinc on Acute Respiratory Infections Including Covid-19

Sage Journals, May 31, 2021

Oregano Oil

COVID-19 and therapy with essential oils having antiviral, anti-inflammatory, and immunomodulatory properties

Inflammopharmacology, August 2020

Carvacrol, a Plant Metabolite Targeting Viral Protease (M^{pro}) and ACE2 in Host Cells Can Be a Possible Candidate for COVID-19

Frontiers of Plant Science, February 2021

Oregano Oil and Its Principal Component, Carvacrol, Inhibit HIV-1 Fusion into Target Cells

Journal of Virology, July 2020

Green Tea

EGCG, a green tea polyphenol, inhibits human coronavirus replication in vitro

Biochemical and Biophysical research communications, Feb 2021

Potential protective mechanisms of green tea polyphenol EGCG against COVID-19

Trends in Food Science and Technology, August 2021

Efficacy of a Polyphenolic, Standardized Green Tea Extract for the Treatment of COVID-19 Syndrome: A Proof-of-Principle Study

COVID, May 2021

COVID -19: could green tea catechins reduce the risks?

MedRxiv, October 2020

Resveratrol

Potential therapeutic effects of Resveratrol against SARS-CoV-2
Acta Virologica, 2020

Resveratrol Inhibits HCoV-229E and SARS-CoV-2 Coronavirus Replication In Vitro
Viruses, Feb 2021

Can Resveratrol-Inhaled Formulations Be Considered Potential Adjunct Treatments for COVID-19?
Frontiers in Immunology, May 2021

Therapeutic Potential of Resveratrol in COVID-19-Associated Hemostatic Disorders
Molecules, February 2021

Indomethacin and resveratrol as potential treatment adjuncts for SARS-CoV-2/COVID-19
International Journal of Clinical Practice, May 2020

Licorice

Use with Caution if you have elevated Blood Pressure

Glycyrrhizin: An alternative drug for the treatment of COVID-19 infection and the associated respiratory syndrome?
Pharmacology and Therapeutics, Oct 2020

Licorice: A Potential Herb in Overcoming SARS-CoV-2 Infections
Journal of Evidence Based Integrative Medicine, March 2021

Glycyrrhizin as a Potential Treatment for the Novel Coronavirus (COVID-19)
Mini Reviews in Medicinal Chemistry, Feb 2021

Effects of Licorice on clinical symptoms and laboratory signs in moderately ill patients with pneumonia from COVID-19: A structured summary of a study protocol for a randomized controlled trial
Trials Journal, September 2020

The potential of glycyrrhizin and licorice extract in combating COVID-19 and associated conditions
Phytomedicine Plus, August 2021

Can Antiviral Activity of Licorice Help Fight COVID-19 Infection?
Biomolecules, June 2021

Curcumin

Curcumin as a Potential Treatment for COVID-19
Frontiers in Pharmacology, May 2021

Antiviral and immunomodulatory activity of curcumin: A case for prophylactic therapy for COVID-19
Heliyon, Feb 2021

Curcumin: a Wonder Drug as a Preventive Measure for COVID19 Management
Indian Journal of Clinical Biochemistry, July 2021

Will curcumin nanosystems be the next promising antiviral alternatives in COVID-19 treatment trials?

Biomedicine and Pharmacotherapy, July 2021

Effects of curcumin-piperine co-supplementation on clinical signs, duration, severity, and inflammatory factors in patients with COVID-19: a structured summary of a study protocol for a randomised controlled trial

Trials Journal, December 2020

The clinical effect of Nano micelles containing curcumin as a therapeutic supplement in patients with COVID-19 and the immune responses balance changes following treatment: A structured summary of a study protocol for a randomised controlled trial

Trials Journal, October 2020

Hesperidin

DO NOT USE ACE2 INHIBITORS IF:

1. You have or develop a respiratory infection or
2. You have Asthma

Is hesperidin essential for prophylaxis and treatment of COVID-19 Infection?

Medical Hypotheses, November 2020

Hesperidin and SARS-CoV-2: New Light on the Healthy Function of Citrus Fruits

Antioxidants, August 2020

Reappraisal of Dietary Phytochemicals for Coronavirus Infection: Focus on Hesperidin and Quercetin

Intechopen, December 2020

Luteolin

Luteolin: A Dietary Molecule as Potential Anti-COVID-19 Agent

Research Square, October 2021

Long-COVID syndrome-associated brain fog and chemofog: Luteolin to the rescue

Biofactors, April 2021

Luteolin and abyssinone II as potential inhibitors of SARS-CoV-2: an in silico molecular modeling approach in battling the COVID-19 outbreak

Bulletin of Natural Research Centre, January 2021

Nature as a Treasure Trove for Anti-COVID-19: Luteolin and Naringenin from Indonesian Traditional Herbal Medicine Reveal Potential SARS-CoV-2 Mpro Inhibitors Insight from in Silico Studies

Biological and Medicinal Chemistry, December 2020

Can nutraceuticals assist treatment and improve covid-19 symptoms?

Taylor & Francis Online, May 2021

“Based on the results obtained so far, quercetin, astaxanthin, luteolin, glycyrrhizin, lactoferrin, hesperidin and curcumin have shown encouraging data suggesting their use to prevent and counteract the symptoms of this pandemic infection.”

COVID-19, pulmonary mast cells, cytokine storms, and beneficial actions of luteolin

Hypothesis, April 2020

Melatonin

Melatonin potentials against viral infections including COVID-19: Current evidence and new findings

Virus Research, October 2020

Melatonin may decrease risk for and aid treatment of COVID-19 and other RNA viral infections

BMJ-OpenHeart, 2021

Shiitake (AHCC) (beta glucans)

Possible therapeutic role of a highly standardized mixture of active compounds derived from cultured Lentinula edodes mycelia (AHCC) in patients infected with 2019 novel coronavirus

Minerva Gastroenterology Dietology, June 2020

Elderberry

Elderberry for prevention and treatment of viral respiratory illnesses: a systematic review

Herbal Medicine

COVID-19: Is There Evidence for the Use of Herbal Medicines as Adjuvant Symptomatic Therapy?

Frontline Pharmacology, September 2020

Traditional Herbal Medicine Candidates as Complementary Treatments for COVID-19: A Review of Their Mechanisms, Pros and Cons

Hindawi, April 2020

Cautions and Opportunities for Botanicals in COVID-19 Patients: A Comment on the Position of the French Agency for Food, Environmental and Occupational Health & Safety

The Journal of Complementary and Alternative Medicine, 2020

Oxidative Stress and Inflammation in COVID-19-Associated Sepsis: The Potential Role of Anti-Oxidant Therapy in Avoiding Disease Progression

Echinacea

The effect of Echinacea spp. on the prevention or treatment of COVID-19 and other respiratory tract infections in humans: A rapid review

Advanced Integrative Medicine, December 2020

In vitro virucidal activity of Echinaforce®, an Echinacea purpurea preparation, against coronaviruses, including common cold coronavirus 229E and SARS-CoV-2

Virology Journal, September 2020

Can Echinacea be a potential candidate to target immunity, inflammation, and infection - The trinity of coronavirus disease 2019

Science Direct, February 2021

Artemisia

Artemisia and Artemisia-based products for COVID-19 management: current state and future perspective

Andrographis

Anti-SARS-CoV-2 Activity of Andrographis paniculata Extract and Its Major Component Andrographolide in Human Lung Epithelial Cells and Cytotoxicity Evaluation in Major Organ Cell Representatives

Journal of Natural Products, April 2021

Andrographis paniculata (Burm. F.) Wall. Ex Nees, Andrographolide, and Andrographolide Analogues as SARS-CoV-2 Antivirals? A Rapid Review

Sage Journals, May 2021

Efficacy and safety of Andrographis paniculata extract in patients with mild COVID-19: A randomized controlled trial ***

MedRxiv, July 2021

Melatonin

Melatonin potentials against viral infections including COVID-19: Current evidence and new findings

Virus Research, October 2020

Melatonin may decrease risk for and aid treatment of COVID-19 and other RNA viral infections

BMJ Journals, Open Heart, February 2021

Probiotics

Using Probiotics to Flatten the Curve of Coronavirus Disease COVID-2019 Pandemic

Frontiers in Public Health, 2020

Probiotics: A potential immunomodulator in COVID-19 infection management

Nutrition Research, March 2021

Effects of Probiotics in Conditions or Infections Similar to COVID-19 on Health Outcomes: An Evidence Analysis Center Scoping Review

J of the Academy of Nutrition and Dietetics, July 2020

The effect of probiotics on respiratory tract infection with special emphasis on COVID-19: Systemic review 2010–20

Int Journal of Infectious Diseases, April 2021

Berberine

A small molecule compound berberine as an orally active therapeutic candidate against COVID-19 and SARS: A computational and mechanistic study

FASEB, April 2021

Berberine reduces circulating inflammatory mediators in patients with severe COVID-19

British Journal of Surgery, Jan 2021

Berberine and Obatoclax Inhibit SARS-Cov-2 Replication in Primary Human Nasal Epithelial Cells In Vitro
bioRxiv, Viruses, 2020

Effect of berberine on COVID-19
Cochrane Library, October 2020

Quercetin

Anti-inflammatory potential of Quercetin in COVID-19 treatment
Journal of Inflammation, January 2021

Potential Clinical Benefits of Quercetin in the Early Stage of COVID-19: Results of a Second, Pilot, Randomized, Controlled and Open-Label Clinical Trial
DovePress, June 2021

Possible Therapeutic Effects of Adjuvant Quercetin Supplementation Against Early-Stage COVID-19 Infection: A Prospective, Randomized, Controlled, and Open-Label Study
Dove Press, June 2021

Quercetin and Vitamin C: An Experimental, Synergistic Therapy for the Prevention and Treatment of SARS-CoV-2 Related Disease (COVID-19)
Frontiers in Immunology, June 2020

Quercetin: Antiviral Significance and Possible COVID-19 Integrative Considerations
Sage Journals, December 2020

Evaluation of the Effect of Zinc, Quercetin, Bromelain and Vitamin C on COVID-19 Patients
medRxiv, 2020

St John's Wort (Hypericum)

Can Hypericum perforatum (SJW) prevent cytokine storm in COVID-19 patients?
Phytotherapy Research June 2020

Determination of Potential Drug Candidate Molecules of the Hypericum perforatum for COVID-19 Treatment
Chemistry to Pharmacology March 2021

Antiviral Activity Against Infectious Bronchitis Virus and Bioactive Components of Hypericum perforatum L.
Frontiers in Pharmacology, October 2019

Can Hypericum perforatum (SJW) prevent cytokine storm in COVID -19 patients?
Phytotherapy research, June 2020

Two promising herbs that may help in delaying corona virus progression
Research Gate, May 2020

Predicted therapeutic targets for COVID-19 disease by inhibiting SARS-CoV-2 and its related receptors
Informatics in Medicine Unlocked, 2020

Myricetin

Myricetin Inhibits SARS-CoV-2 Viral Replication by Targeting Mpro and Ameliorates Pulmonary Inflammation
Frontiers in Pharmacology, June 2021

Potential of Flavonoid-Inspired Phytomedicines against COVID-19
Molecules, June 2020

Flavonols as potential antiviral drugs targeting SARS-CoV-2 proteases (3CLpro and PLpro), spike protein, RNA-dependent RNA polymerase (RdRp) and angiotensin-converting enzyme II receptor (ACE2)
European Journal of Pharmacology, January 2021

Myricetin bioactive effects: moving from preclinical evidence to potential clinical applications
BMC Complementary Medicines August 2020

Plant-Derived Natural Polyphenols as Potential Antiviral Drugs Against SARS-CoV-2 via RNA-dependent RNA Polymerase (RdRp) Inhibition: An In-Silico Analysis
Organic Chemistry, May 2020

Myricetin: A review of the most recent research
Biomedicine and Pharmacotherapy, February 2021

Identification of myricetin and scutellarein as novel chemical inhibitors of the SARS coronavirus helicase, nsP13
Bioorganic & Medicinal Chemistry Letters, 2012

Flavonoids: A complementary approach to conventional therapy of COVID-19?
Phytochemistry Reviews, 2020

Skullcap

Scutellaria baicalensis extract and baicalein inhibit replication of SARS-CoV-2 and its 3C-like protease in vitro
J Enzyme Inhib Med Chem, Jan 2021

Baicalein inhibits SARS-CoV-2/VSV replication with interfering mitochondrial oxidative phosphorylation in a mPTP dependent manner
Nature, November 2020

The comprehensive study on the therapeutic effects of baicalein for the treatment of COVID-19 in vivo and in vitro
Biochemical Pharmacology, Jan 2021

Scutellaria baicalensis Flavones as Potent Drugs against Acute Respiratory Injury during SARS-CoV-2 Infection: Structural Biology Approaches
Processes, October 2020

Applications, phytochemistry, pharmacological effects, pharmacokinetics, toxicity of Scutellaria baicalensis Georgi. and its probably potential therapeutic effects on COVID-19: a review
Chinese Medicine 2020

Nattokinase

Article on A possible solution for blood clot caused by COVID-19: BSNK66® Nattokinase

Boswellia

Boswellic acids/Boswellia serrata extract as a potential COVID-19 therapeutic agent in the elderly

Inflammopharmacology, August 2021

Unravelling promise of Indian herbal compounds as potential COVID-19 therapeutic agent

Research square, July 2020

Nigella sativa

Potential benefits of combination of Nigella sativa and Zn supplements to treat COVID-19

J Herbal Medicine, June 2020

Honey and Nigella sativa against COVID-19 in Pakistan (HNS-COVID-PK): A multi-center placebo-controlled randomized clinical trial

MedRxiv, 2020

Prophetic Medicine-Nigella Sativa (Black cumin seeds) – Potential herb for COVID-19?

Journal of Pharmacopuncture, September 2020

Thymoquinone: A Promising Natural Compound with Potential Benefits for COVID-19

Prevention and Cure

DovePress, May 2021

Lactoferrin

Lactoferrin as potential preventative and adjunct treatment for COVID-19

Int J of Antimicrobial Agents, September 2020

Lactoferrin for the treatment of COVID-19 (Review)

Experimental and Therapeutic Medicine, December 2020

The Biology of Lactoferrin, an Iron-Binding Protein That Can Help Defend Against Viruses and Bacteria

Frontiers in Immunology, May 2020

Lactoferrin Against SARS-CoV-2: In Vitro and In Silico Evidences

Frontiers in Pharmacology, June 2021

The effects of orally administered lactoferrin in the prevention and management of viral infections: A systematic review

Medical Virology, May 2021

SPM's

Specialized Pro-Resolving Mediators as Potential Regulators of Inflammatory Macrophage Responses in COVID-19

Frontiers in Immunology, February 2021

Covid-19 management with inflammation resolving mediators? Perspectives and potential

Medical Hypothesis, September 2020

Selenium

A Mechanistic Link Between Selenium and Coronavirus Disease 2019 (COVID-19)
Curr Nutr Rep, June 2021

An exploratory study of selenium status in healthy individuals and in patients with COVID-19 in a south Indian population: The case for adequate selenium status
Nutrition, Feb 2021

Association between fatality rate of COVID-19 and selenium deficiency in China
BMC Infectious Diseases, May 2021

Association of Vitamin D, Zinc and Selenium Related Genetic Variants With COVID-19 Disease Severity
Frontiers in Nutrition, June 2021

Association between regional selenium status and reported outcome of COVID-19 cases in China
A, J Clinical Nutrition, June 2020

Maternal selenium status plays a crucial role on clinical outcomes of pregnant women with COVID-19 infection
Medical Virology, May 2021

Magnesium

Possibility of magnesium supplementation for supportive treatment in patients with COVID-19
European Journal of Pharmacology, November 2020

Cohort study to evaluate the effect of vitamin D, magnesium, and vitamin B 12 in combination on progression to severe outcomes in older patients with coronavirus (COVID-19)
Nutrition, December 2020

SARS-CoV-2: influence of phosphate and magnesium, moderated by vitamin D, on energy (ATP) metabolism and on severity of COVID-19
Endocrinology and Metabolism, January 2021

Relationships between hyperinsulinaemia, magnesium, vitamin D, thrombosis and COVID-19: rationale for clinical management
BMJ Journals, September 2020