



Ambito Biomedico

23/05/2020

La Scuola Regionale dello Sport delle Marche risponde

Appuntamenti on-line dedicati ad approfondimenti utili al mondo sportivo nel tempo dell'emergenza Covid-19.

***Piero Benelli
Specialista in Medicina dello Sport***

Attività fisica per i contagiati Covid-19 guariti



Al 18/05/2020

Covid19: 12694 citazioni

Covid19 physical activity: 96 citazioni

Covid19 sport: 89 citazioni

REVIEW

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Journal of
Clinical Medicine



What we know so far: COVID-19 current clinical knowledge and research

Author: Mary A Lake^A



In December 2019, health authorities in Wuhan, China, identified a cluster of pneumonia cases of unknown aetiology linked to the city's South China Seafood Market. Subsequent investigations revealed a novel coronavirus, SARS-CoV-2, as the causative agent now at the heart of a major outbreak. The rising case numbers have been accompanied by unprecedented public health action, including the wholesale isolation of Wuhan. Alongside this has been a robust scientific response, including early publication of the pathogen genome, and rapid development of highly specific diagnostics. This article will review the new knowledge of SARS-CoV-2 COVID-19 acute respiratory disease, and summarise its clinical features.

SARS-CoV-2

The clinical disease termed COVID-19 is caused by a novel betacoronavirus, now named SARS-CoV-2. SARS-CoV-2 shares 79% sequence identity with SARS-CoV, the virus which caused a major outbreak in 2002–2003.^{2–4} In common with SARS-CoV, SARS-CoV-2 utilises the ACE-2 receptor for cell entry. Electron microscopy reveals pleomorphic spherical particles, studded with distinctive spike proteins.⁵ Coronaviruses, a family which also includes Middle East respiratory syndrome (MERS) CoV and four of the main agents of the common cold, are zoonotic pathogens. In keeping with this, the first cluster of cases were identified in association with the South China Seafood Market, a 'wet' market at which a large range of live or freshly slaughtered

Review

Novel Coronavirus Infection (COVID-19) in Humans: A Scoping Review and Meta-Analysis

Israel Júnior Borges do Nascimento ¹, Nensi Cacic ², Hebatullah Mohamed Abdulazeem ³,



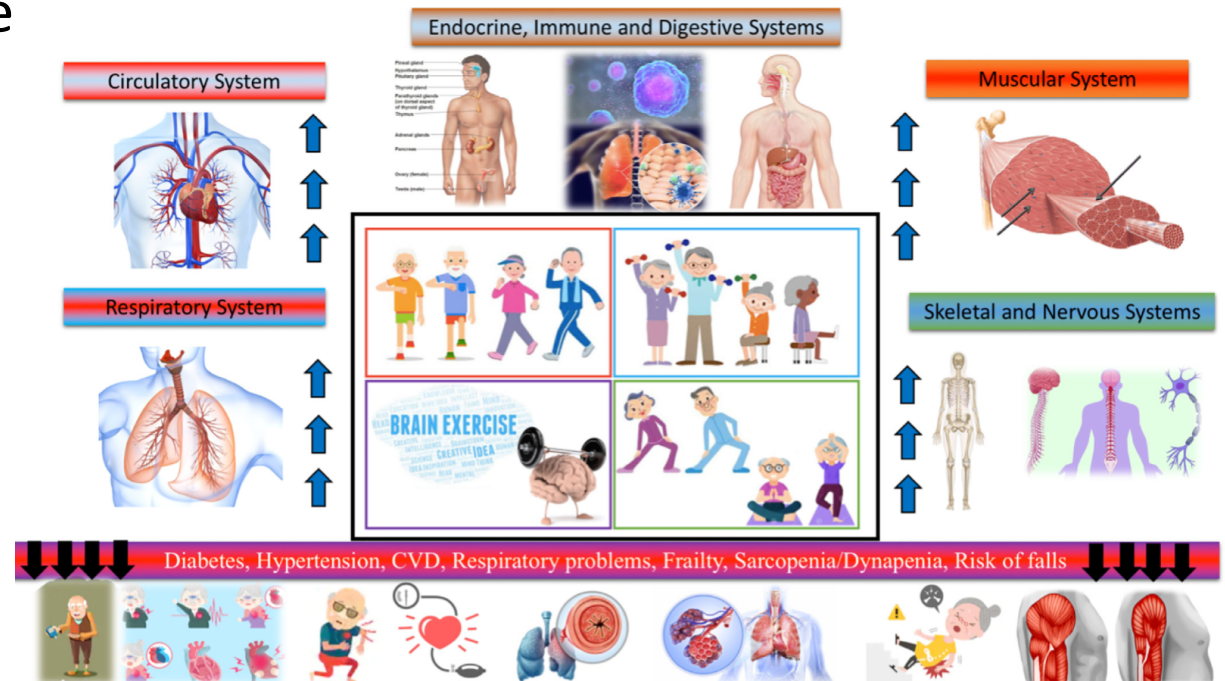
FMSI FEDERAZIONE MEDICO
SPORTIVA ITALIANA

**RACCOMANDAZIONI FMSI PER LA RIPRESA DELL'ATTIVITA' FISICA "POST-COVID-19"
DA PARTE DI TUTTA LA POPOLAZIONE CHE NON PRATICA SPORT AGONISTICO**

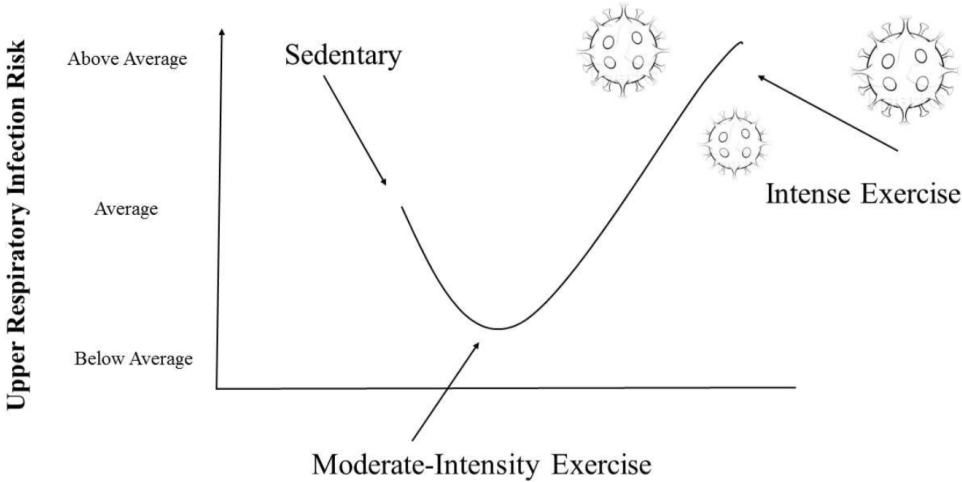
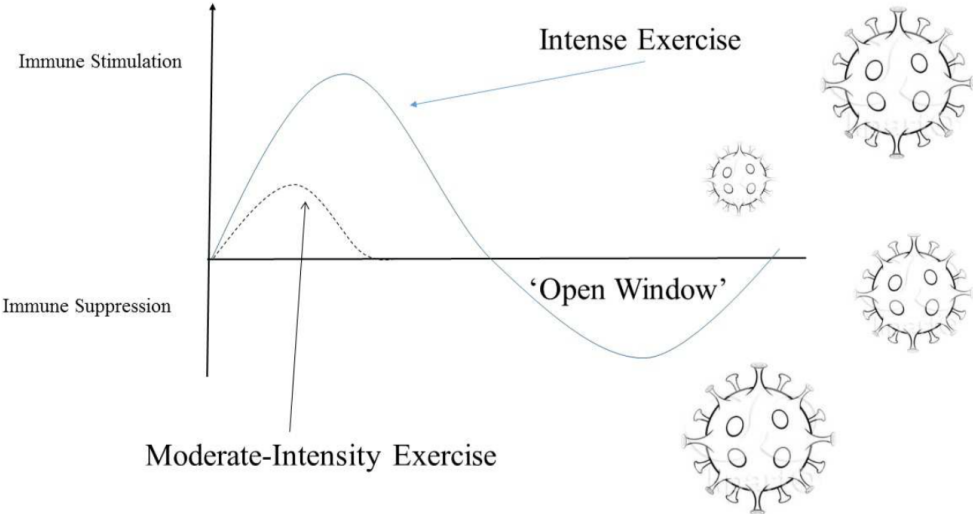
www.fmsi.it

Covid19 – Quali le possibili conseguenze

- Apparato polmonare (polmoniti interstiziali)
- Apparato cardiovascolare
- (miocarditi, vasculiti)
- Apparato muscolare
- (sarcopenia)
- Apparato renale
- Apparato visivo
- Sistema immunitario
- Altro?



Sistema immunitario

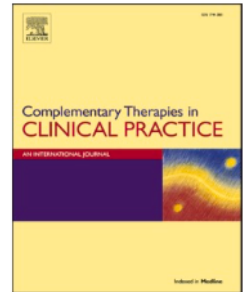




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Complementary Therapies in Clinical Practice

journal homepage: <http://www.elsevier.com/locate/ctcp>



Respiratory rehabilitation in elderly patients with COVID-19: A randomized controlled study

Kai Liu^{a,1}, Weitong Zhang^{b,1}, Yadong Yang^{c,1}, Jinpeng Zhang^{c,1}, Yunqian Li^a, Ying Chen^{d,*}

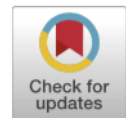




TABLE 1 | Pre-Exercise Screening Questionnaire (PESQ).

Take the Pre-Exercise Screening Questionnaire (PESQ)

Being physically active is very safe for most people. Some people, however, should consult their doctors before starting physical exercise, especially if they experience symptoms of fever for many days.

Answer **Yes** or **No** to the Following Questions

- 1) Do you feel a sore throat?
- 2) Do you feel cough and sputum production?
- 3) Do you feel fatigue?
- 4) Do you feel short of breath or difficulty breathing?
- 5) Do you feel fever $>37.8^{\circ}\text{C}$?
- 6) Have you had fever for more than three days $>37.8^{\circ}\text{C}$?
- 7) Have you had any contact with anyone who has been diagnosed or suspected of the new coronavirus?

If You Answered Yes

If you answered yes to question number seven (Q-6) and/or number nine (Q-7), You should ask for a medical clearance along with information about specific for starting exercise.

If You Answered No

If you answered no to all the PESQ questions, you can be reasonably sure that you can exercise safely and have a low risk of having any medical complications from exercise.

Coronavirus Pandemic (SARS-COV-2): Pre-Exercise Screening Questionnaire (PESQ) for Telepresential Exercise

Leônidas de Oliveira Neto^{1*}, Vagner Deuel de Oliveira Tavares², Felipe Barreto Schuch³ and Kenio Costa Lima⁴

Spotlight

Respiratory health in athletes: facing the COVID-19 challenge



There are unique cohorts of individuals facing specific challenges during the current global coronavirus disease 2019 (COVID-19) crisis. When faced with a rapidly evolving pandemic associated with high morbidity and mortality in older people (>60 years), the respiratory health of a (predominantly) young and very physically fit population might, on the face of it, seem trivial or almost irrelevant. Yet, for athletes, para-athletes, and clinicians concerned with their health, it is important that targeted guidance is available to ensure the wellbeing of this population is considered.

Several specific issues are pertinent here, including

where athletes train in groups, engage in contact sports, do not adhere to universal guidelines for social distancing, make use of shared equipment, do not practice universal guidelines to maintain personal hygiene, and use common facilities such as changing rooms. There is, however, currently no specific data available regarding the prevalence, nature, and behaviour of COVID-19-related illness in athletic individuals.

A key concern in athletic individuals surrounds the timing or ability to return to full physical exertion (a return to play strategy), following an infection. Many young individuals with COVID-19 infection appear to develop



The COVID-19 pandemic is a challenging time for all, but some populations, such as athletes, have very specific needs. In this maelstrom of changes, it is important to identify some of the unique challenges this population currently faces to ensure these needs are addressed, and the health and wellbeing of this population is protected.

Exercise and Fitness in the age of social distancing during the COVID-19 Pandemic

Sharmilee M. Nyenhuis MD, FAAAAI,^{1,2} Justin Greiwe MD,^{3,4} Joanna S. Zeiger, MS, PhD⁵ Anil Nanda, MD,^{6,7} Andrew Cooke, MD⁸

The American Heart Association recommends 2.5 hours of moderate-intensity aerobic activity a week.



Moderate-intensity aerobic activity is activity that makes your heart beat faster and your breathing heavier, but you can still talk.

Home fitness revolution!

Viewpoint

May 13, 2020

A Game Plan for the Resumption of Sport and Exercise After Coronavirus Disease 2019 (COVID-19) Infection

Dermot Phelan, MD, PhD¹; Jonathan H. Kim, MD, MSc²; Eugene H. Chung, MD, MSc³

Author Affiliations [Article Information](#)

JAMA Cardiol. Published online May 13, 2020. doi:10.1001/jamacardio.2020.2136

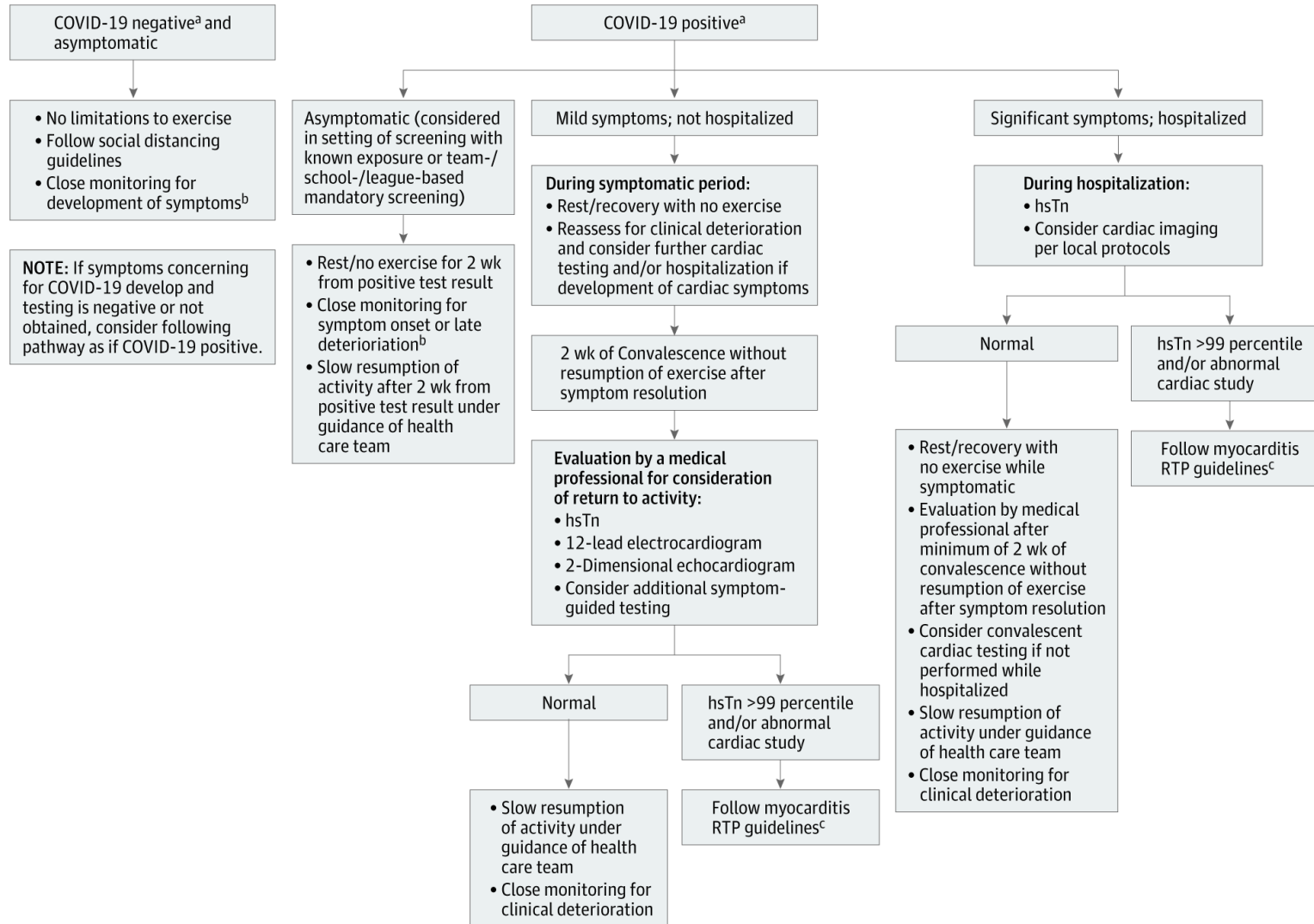
Attenzione ai sintomi (miocardite ed altre complicanze cardiovascolari)

Screening in base ai sintomi

2 settimane di riposo alla fine dei sintomi

Ripresa graduale con attività aerobica e di mobilizzazione con tutti i gruppi muscolari

A Game Plan for the Resumption of Sport and Exercise After Coronavirus Disease 2019 (COVID-19) Infection



Pulmonary Rehabilitation Guidelines in the Principle of 4S for Patients Infected With 2019 Novel Coronavirus (2019-nCoV)]

[Article in Chinese]

[F Yang](#)¹, [N Liu](#), [J Y Hu](#), [L L Wu](#), [G S Su](#), [N S Zhong](#), [Z G Zheng](#)

Controllo del respiro

Gestione della postura in funzione di una corretta respirazione

Esercizi di ventilazione con impegno tronco/arti superiori

Rilassamento dei muscoli respiratori + muscolatura capo e collo

Pratica di attività specifiche (Tai-chi, Qi-gong etc)

Esercizi di rinforzo muscolare generale

Intensità degli esercizi medio-bassa




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lingua: Inglese

Systematic rapid “living” review on rehabilitation needs due to covid-19: update to march 31st 2020

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Riabilitazione precoce

Esercizi per mobilizzare, combattere la sarcopenia, combattere la depressione

Utilizzo della teleriabilitazione

Aggiornamento dopo 1 mese:

- **Trattamento delle complicanze neurologiche**
- **Trattamenti di riabilitazione respiratoria precoce nella fase acuta, poi teleriabilitazione**



ORIGINAL ARTICLE

Impact of sedentarism due to the COVID-19 home confinement on neuromuscular, cardiovascular and metabolic health: Physiological and pathophysiological implications and recommendations for physical and nutritional countermeasures

MARCO NARICI¹, GIUSEPPE DE VITO¹, MARTINO FRANCHI², ANTONIO PAOLI³,
~~MARTINO FRANCHI², GIUSEPPE DE VITO¹, ANTONIO PAOLI³, MARCO NARICI¹~~

- **Fitness cardiorespiratorio**
- **Efficienza neuromuscolare**

Mantenere un'attività quotidiana, sostanzialmente aerobica ma che coinvolga i diversi gruppi muscolari

A volte utile anche attività a media-alta intensità

Proposta di screening per soggetti guariti da Covid12 (selezionare)

- Visita clinica con anamnesi specifica
- Test da sforzo (cardiopulmonare con VO₂max?)
- Analisi ematologiche (sistema immunitario / indici di infiammazione)
- RX torace
- Spirometria (VEMS)
- FC base
- Qualità del sonno

Proposta di attività fisica per soggetti guariti da Covid12

- Esercizi di riabilitazione respiratoria
- Attività aerobica
- Mobilità articolare
- Recupero massa muscolare
- Esercizi specifici (in relazione attività sportiva / lavorativa)

- Strutturare il programma in “fasi”

Conclusioni

- Gli esiti del Covid-19 possono dare sintomi che coinvolgono diversi apparati a differenti livelli di intensità
- La ripresa di un'adeguata attività fisica costituisce un'importante componente nel percorso terapeutico e riabilitativo dei soggetti contagiati dal Coronavirus e poi guariti
- Occorrono nuovi studi, informazioni e conoscenze per costruire protocolli utili per permettere ai contagiati un recupero efficace e il ripristino dell'efficienza psicofisica e del fitness cardiovascolare