




MAHATMA GANDHI INSTITUTE OF MEDICAL SCIENCES, SEVAGRAM

**International Webinar on
Cardiovascular & VO₂ Max Assessment**

Date: 9 September 2020

REPORT

INTERNATIONAL WEBINAR
Cardiovascular & VO₂ Max Assessment



9th September 2020 • IST 12:00pm - 1:30pm

GUEST SPEAKER
Dr. Ruchi Kothari
Associate Professor, Dept. Physiology
Mahatma Gandhi Institute of Medical Sciences
Sevagram, Wardha, India

Dr. Ruchi Kothari has been instrumental in establishing central India's first state-of-the-art Sports Physiology lab in a rural medical institute.

Highlights of the webinar include:

- **Assessment of VO₂ Max**
- **HRV Analysis through LabChart**
- **Wireless ECG recording**
- **Data Analysis and interpretation**

Sports physiology is a recent outlet emanating from the discipline of exercise physiology that encompasses application of its concepts not only to training athletes and enhancing sports performance but its clinical subcomponent involves use of its principles, knowledge and skills for purposes of the cardiac rehabilitation or assessing the risk of cardiovascular disease or accidental disability in humans. As the physiology of sports embodies a wide and diverse range of scientific interests, the intention and the major challenge is to collate the most pertinent of these interests into a coherent strategy for overall fitness of an individual. Soon after coronavirus had forced the country into lock down, there was a dire need to acquire a better understanding of the cardiopulmonary fitness and bring all the related perspectives together. Thus in order to embrace a wider audience and with the **objective** of spreading awareness about maintenance of optimum VO_2 max and regular surveillance of aerobic capacity which is much more relevant now than ever in wake of the COVID-19 health scare and the pandemic wrath, Dr. Ruchi Kothari, Associate Professor, In-Charge of Sports Physiology Laboratory, MGIMS conducted an interactive webinar. The “International Webinar on Cardiovascular & VO_2 Max Assessment” was held on 9 Sep 2020.

This session aimed at sensitizing the viewers towards the advances in bridging wireless and wired technology with fitness assessment. During the webinar, Dr Ruchi highlighted the importance of **VO_2 max** which provides a measure of how well one’s circulatory and respiratory systems can supply oxygen and nutrients to your body when exposed to any physiological stress. With respect to COVID-19, the end stage of the disease comes down to respiratory distress which can be accurately predicted in its preliminary stages through the parameters that were demonstrated by Dr. Ruchi during the webinar as a part of **fitness measurements upon treadmill exercise**. She also provided an insight to significance of **Heart Rate Variability** which is the cardiac inter-beat variation indicating the intricacies of autonomic regulation of the heart during exercise and stress. Dr. Ruchi commented, although we all are trying our best to prevent this unwanted guest from knocking at our door but even if you do end up getting infected, having a better lung health does indeed ensure a higher chance of survival and a better prognosis. Therefore, it extremely important to maintain our cardiorespiratory fitness. The webinar notably had 700 plus registrations and 336 plus attendees online till the end. The participants apart from various medical colleges of Indian subcontinent enrolled from all across the globe including the countries like Turkey, Kazakhstan, Saudi Arabia, Nepal, Iraq, Taiwan, Pakistan, New Zealand, Australia, Slovakia, Boston (New York, US) etc.