

## SCHILLER : the Brief

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*It always seems impossible  
until it's done"- Nelson  
Mandela*

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## Product Focus

### The Importance of Resting ECG in Sports Check-up

– Biswajit Pradhan, National Product Manager, SCHILLER India

The combination of heart and sport has been a topic for over a century. The benefits and risks that are involved in relation to sport have been debated and the ECG has been a constant focus of these discussions. We know with certainty that regular endurance sports activities lead to a physiological increase of the heart's size, accompanied by a regular, eccentric increase in size of all heart chambers, and to a thickening especially of the membranes of the heart chambers accompanied by improved cardiac functions. As a result, ECG alterations can be observed, which are due to this physiological adaptation. However, these alterations can be misinterpreted as pathological changes.

As per the latest approximations 1 per 40,000 to 1 per 80,000 athletes each year succumb to Sudden Cardiac Death (SCD) making it the most common medical cause of death among athletes. Cardiac abnormalities accountable for SCD exist in 0.3% of the general population of athletes. The possibility of SCD increases when athletes are vulnerable to underlying cardiac abnormalities even though they are viewed as the healthiest people. The existence of cardiac abnormalities that can cause SCD are difficult to detect as not many indicators are present.

#### CARDIOVIT® AT-180

High-performance 16-channel ECG system



- 18.5" high-resolution multi-touch screen for easy ECG review
- Full-size keyboard with a durable, exchangeable cover keeping dust, dirt and liquids out, making it highly hygienic
- Resting rhythm for up to 20 minutes
- ECG Framer: Create a 10-seconds resting ECG from a resting rhythm recording
- Various diagnostic analysis programs: ETM, ETM Sport, SAECC, Vector ECG, arrhythmia detection, ECG re-measurement (optional)
- Hook-up adviser with colour-coded waveforms and anatomical model
- Fast and secure bidirectional Wi-Fi communication, PDQ

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Abnormal findings on a 12-lead ECG indicate most disorders linked with an increased risk of SCD like cardiomyopathies and primary electrical diseases. It is important to discern an underlying pathological condition from physiological alterations resulting from endurance sports activities by a thorough analysis of ECG interpretation in athletes.

An international group of experts in sports cardiology, sports medicine and inherited cardiac disease, convened in Seattle, Washington (USA), on 26-27 February 2015, in order to outline and modify existing standards for ECG interpretation in athletes. In addition to the revision of ECG interpretation standards based on evolving research, the experts intended on developing a well-defined guide to assess ECG abnormalities in athletes. The result was released in a consensus statement – the Seattle Criteria 2017. Recommendations on the normal ECG of athletes and the linking of specific ECG abnormalities and the secondary evaluation for conditions associated with SCD, were made in the course of many such consensus conferences.

Recent studies have revealed that a PC-based analysis of ECGs is better than only a visual interpretation as it greatly increases the validity of the interpretation of an athlete's ECG. This leads to an improvement of the specificity, sensitivity and predictive value of the ECG thereby resulting in fewer false-negative and false-positive diagnosis. Hence, PC-analysed resting ECGs are more dependable than clinical diagnosis and anamnesis for athletes. Due to this a resting ECG should be a standard part of any sports medical check-up.

In co-operation with sports physicians, SCHILLER has programmed the interpretation of athletes' ECGs based on the Seattle Criteria 2017. SCHILLER's ETM Sport allows the number of false-negative and false-positive results to be reduced thus supporting the cardiologist in the recognition of abnormal findings. ETM Sport compares ECG measurements with the normal and abnormal values indicated by the Seattle criteria and classifies them.

Source: [group.bmj.com](http://group.bmj.com)

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## Company News

### SCHILLER India’s all-woman manufacturing unit at Vizag



At SCHILLER “Woman Empowerment” is not just a jargon but a practice we abide by earnestly. Our manufacturing facility at Vizag has an all-woman team that is in charge of the production and packaging of our SOLUS and TRUSCOPE range of monitors, new DG 400 and Spandan. Kudos to the team’s contribution towards SCHILLER’s progress.

### First Spine Reconstruction Case at MIOT Chennai using BodyTom®



MIOT, Chennai commenced their first spine reconstruction case with BodyTom® recently. A 58 year old man in Chennai was diagnosed with lumbar disc degeneration and was experiencing loss of height and instability. With the aid of BodyTom the initial intra-operative CT was acquired and patient was immediately transferred to surgical navigation system. The Intra-operative CT-based navigation system ensures correct implant position. Subsequently, the Dynamic Reference Frame (DRF) was attached to the spinous process to maintain dynamic registration. The surgeon thereafter proceeded with image guided navigation during the screwplacement. Final intra-operative CT was acquired to confirm correct alignment through the neck of the pedicle. Total scanning process took less than 15 minutes, including draping, scanning and DICOM image transfer to the navigation system. Surgeon closed the procedure with higher degree of confidence in surgical accuracy

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## **ROSA comes to rescue at Amrita Hospital in Kochi**



ROSA (Robotic Stereotactic Assistance) is a robotic assistant that helps surgeons in planning and performing complex neurosurgical procedures in a minimally invasive manner. It facilitates fast, accurate and minimally invasive neurosurgery.

Dr Ashok Pillai along with Dr Ayyadurai R has performed close to 800 surgeries with Rosa Brain, which was installed in 2014 at Kochi. One such surgery was performed on a 46 year old woman from Maldives who was diagnosed with severe neurological disorders. She got a new lease of life after a Deep Brain Stimulation surgery was performed on her at Amrita Hospital with the help of ROSA. Using its advanced brain-sensing technology the patient was brought back to normal life.

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## Events

Here is a list of Conferences we will be a part of in the coming months. Do drop in at our stall to know more about our products.

| Conference                         | City      | Date      |
|------------------------------------|-----------|-----------|
| Rajasthan Neuroscience Update 2022 | Jodhpur   | Oct 7-8   |
| W4C World Conference, SRMSIMS      | Bareilly  | Oct 13-16 |
| IPOKRATES 2022                     | Bangalore | Nov 3-5   |
| NAPCON 2022                        | Udaipur   | Nov 10-13 |
| ISECON 2022                        | Mumbai    | Nov 18-20 |
| CARDIOCON 2022                     | Guwahati  | Nov 18-20 |
| ISSACON 2022                       | Shillong  | Nov 23-27 |