

HOW TIME COUNTS AGAINST YOU

## What changes as part of the natural ageing process?\*

- Body weight increases.
- Body height decreases, beginning at around age 35.
- Body fat increases.
- Fat-free body mass decreases at around age 45.
- Maximal muscle strength decreases.
- Muscle-fibre balance shifts toward a higher percentage of type I (slow-twitch) fibres and away from type II (fast twitch).
- Total number of muscle fibres decreases with age.
- Neuromuscular response time slows down.
- A decrease in the maximum heart rate.
- Peak flow decreases.
- Increased risk of injury caused by exercise.
- Decreased oxygen transport to the muscles.
- Ability to perform in hot conditions lessens with age.

\* These changes are seen in normally active people, but the extent to which they occur is usually related to the decline in physical activity as people age. Endurance and strength training can greatly attenuate many of these changes and health screening can play a part in identifying the extent of them.

of underlying heart conditions, usually some form of coronary artery disease. There is sufficient instance of sudden cardiac death in athletes of all ages across a wide range of endurance sports to remind us that strenuous endurance sports are not without their risks and undertaking them shouldn't be done lightly.

### Health screening

Hypertrophic cardiomyopathy is thought to be a significant cause of sudden unexpected cardiac death in any age group and is

“Strenuous endurance sports are not without their risks”

THE HARLEY STREET HEART SPECIALISTS

## Cardio Direct Health Screening

CARDIO Direct is a Harley Street-based business, which labels itself a “one-stop non-invasive cardiac investigation centre”. Which in plain English means they have a very close look at many aspects of your heart in order to evaluate whether it's performing as well as it should be for anything from a normal sedentary lifestyle to those in pursuit of sporting glory.

They recommend pre-participation screening and repeat tests at least every two years. For athletes over the age of 35 they recommend the Bruce Protocol test as well as the ECG.

Huw Williams was invited along to see what their sports screening test involves. Cardio Direct can be found on the upper floors of a very grand, old townhouse in Harley Street.

On arrival, staff outline what they are going to do and you begin by filling in a questionnaire on your medical history. One of the specialists then analyses your form and goes into further detail on anything that might jump out as areas for particular interest, and you're given a brief medical test for the usual things like blood pressure and resting heart rate.

“You are then given a series of non-invasive ECG and ultrasound tests, and you can even look at pictures of how efficiently the various chambers and valves of your heart are working away in real-time on the monitor screen next to you. There's something quite surreal about seeing your own heart beating away in there and it sounds amazing.

“Next comes the stress test, where you don running kit and get busy on the treadmill. Speed and incline increase incrementally until you reach your theoretical maximum heart rate while you're hooked up to a 12-lead ECG machine, which reveals any problems with heart damage, rhythm, electrical activity or problems due to muscle ‘thickening’.

“The consultants then answer any questions you might have regarding the procedures and a very comprehensive analysis and breakdown of the results arrives in the post in the week following the tests. This indicates any areas for concern you might have and advises you on any further action you might need to take.

Cardio Direct: 020 7935 9308 [www.cardiodirect.co.uk](http://www.cardiodirect.co.uk)

