

Exercise Paradox

Does Risk lead to Health?

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There have been many reported cases of persons suffering from sudden cardiac arrest during endurance sporting events. In 2013 there were 2 people who died during IRONMAN Port Elizabeth and there have been other reported cases over the years during big races such as Comrades and Two Oceans. This not excluding any of the “smaller” races taking place throughout South Africa and the world all year round. It has even occurred in football where Fabrice Muamba collapsed during an FA Cup knockout match, however, he was fortunate enough to survive. While the notion is that exercise should prevent these from occurring, these cases are being reported more and more in the media. There can be many reasons as to why this “exercise paradox” occurs, all of which will be investigated in a future article. The question today is rather is the risk of this sudden cardiac arrest (and other injury risks) worth the well-known advantages of exercise, and does the risk lead to health in some essence?

While the media can sometimes sensationalise these stories (and rightly so to a certain extent, sudden cardiac arrest during exercise should be taken as a serious issue), however should we be concerned by the incidence of sudden cardiac arrest occurrences? Albert et al reported data in two separate studies – one was a long-term study with more than 121 000 females whereby they showed that death via sudden cardiac arrest during exercise had an incidence rate of 1 death per 36.5 million hours¹ of exertion. Their study in male subjects showed an incidence rate of 1 death per 1.51 million hours² of exertion. Overall it would be a mistake for people to equate exercise with danger and therefore avoid it. Those who exercise regularly are still at less risk than their sedentary counterparts when it comes to exertion. And while there is this inherent risk during exercise and for an hour and a half afterwards, regular exercise is important in preventing those events. Among sedentary subjects the risk of dying during exercise is 20.9 times higher than when doing no form of exercise. And overall studies show the more people exercise the more they lower their risk of sudden cardiac death². Therefore the risk does lead to health.

The key here though is to identify the risk of having any form of heart disease. Get a screening test by your doctor

– this is not full proof however underlying issues can be picked up in a screening. Continue to consult with your doctor when taking on a new vigorous exercise regime and don't train and compete when sick.

Aside from sudden cardiac arrest in endurance sports there are also injury risks which can occur during other training such as strength / weight training. Training trends such as CrossFit and other HIIT (High intensity intermittent training) have received wide criticism of not being safe and carrying large risks for injury. At the end of the day all weight training carries risk of injury when not performed correctly and safely, not only CrossFit. The intricacy of where CrossFit and other regimes are perhaps allowing for these statements to be true is an article all on its own. When weight training exercises are performed incorrectly; injuries can occur in an acute way and/or in a long term overuse manner. If those movements are the movements you want to perform ensure that you are doing the exercise in the correct manner, consult a strength and conditioning specialist to assist you and guide your training programme. And if you are unable to perform certain movements with the correct technique the last thing you should be doing is loading that movement with more weight. Take the movement back to the basics and start from there or change the movement to a different, less intricate exercise.

The simple fact is there are more basic exercises that can sometimes give you as much benefit (if not more) and provide a fraction of the risk involved. There you will find the balance of risk leading to reward. Always remember that more isn't better; better is better and overall the biggest reward is to stay injury free.

References:

1. Whang W, Manson JE, Hu FB, Chae CU, Rexrode KM, Willett WC, Stampfer MJ, Albert CM. (2006). Physical exertion during exercise, exercise and sudden cardiac death in women. *Journal of American Medical Association*. Mar 22:295(12): 1399-403
2. Albert CM¹, Oh K, Whang W, Manson JE, Chae CU, Stampfer MJ, Willett WC, Hu FB (2005) Dietary alpha-linolenic acid intake and risk of sudden cardiac death and coronary heart disease. *Circulation*. Nov 22:112(21): 3232-8

