



You can't out-train a sedentary lifestyle

PART ONE

Following the overwhelming feedback FitPro received after our free webinar, *Targeting the Sedentary Market*, join us for the first in a six-part series about how we can understand this demographic better, the impact COVID-19 has had on the sedentary market and what fit pros need to know if we are to truly tackle the sedentary global pandemic.

Throughout our evolution, physical activity has been intrinsically linked to the structure and function of all aspects of our organism, maintaining our bodies and keeping our brain functioning.

Between 50,000 and 150,000 years ago, our bodies evolved to search and hunt for food through constant cycling of 'feast and famine', causing the body to develop specific metabolic protocols to regulate the amount of food available for energy. Thrifty genes evolved to ensure adequate food storage during the feast period that could be used during the famine period. During periods of feasting, metabolic adaptations evolved to store fuel as fat, which could be used to forage or hunt for more food or build shelter.

Today, a combination of a sedentary lifestyle and access to freely available energy-dense food has almost eliminated

these metabolic processes that were so important in our development. Metabolic genes that were once programmed for physical activity have been turned down, leading to greater fuel storage.

Our gene pool was shaped by environmental conditions requiring constant movement that no longer exist today in our new sedentary society. With the elimination of hunger, thirst and danger we have effectively eradicated the powerful motivation and connection between moving, food gathering and survival. Ironically, our bodies are still designed for an active Stone Age lifestyle.

For over 65 years, starting with the famous Dr Jeremy Morris London bus driver/conductor studies, there has been extensive research published supporting physical activity as the most effective intervention strategy for improving health and fitness and

reducing obesity levels.

Armed with increased knowledge, improved public health policies, increased gym memberships and increased leisure time pursuits, there is still a reluctance for mainstream society to increase its physical activity levels, culminating in physical inactivity now being the fourth most significant risk factor causing death. Even though we are now living longer, we are also suffering from an increased risk of metabolic disorders, obesity, cardiovascular disease and cancer-related illnesses, often in the presence of increasing obesity levels. While our longevity might have increased significantly, so too has our morbidity. We are kept alive by a plentiful supply of food, various medications, excellent healthcare facilities, greater medical knowledge and improved surgical procedures.

Lifestyle-related diseases, sometimes referred to as the 'disuse syndrome', are now responsible for over 70% of all the major causes of death. More specifically, inactivity is responsible for 22% of cardiovascular disease, 22% of colon cancer, 18% of bone fractures, 12% of hypertension and 5% of breast cancers, accounting for 2.4% of the US healthcare expenditure, which translates into \$24,000,000,000 per year! More people die from inactivity-related illnesses than from car accidents, gun deaths, sexually transmitted diseases and drug overdoses combined. In fact, three to five million people globally die every year from inactivity-related illnesses, which is almost as many as die from smoking.

In a recent landmark study conducted at Sydney University (Australia), researchers reported that heart disease, stroke, breast cancer and colon cancer and the loss in productivity and disability adjusted life years of inactivity across 142 countries (representing 93.2% of the world's population).

They found that, globally, annual inactivity costs the healthcare system USD \$67.5 billion, of which the public sector paid \$31.2 billion, while \$12.9 billion was paid by the private sector and \$9.7 billion by households. Inactivity-related deaths contributed to \$13.7 billion in productivity losses alone. Interestingly, high-income countries shouldered the largest proportion of these healthcare costs to the tune of 80.8%. The changes in lifestyle over the past

40 years have been so dramatic that we are only now recognising the unique devastating responses that a sedentary lifestyle creates.

Fitness programmes today largely focus on dietary manipulation, training methods, exercise technique and equipment, postural alignments, functional training, correcting muscle imbalances, etc. (all of which are very important), usually conducted during a specific training session comprising on

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average 2-5% of a person's 24 hours/day. While current moderate-vigorous fitness programmes (MVFP) have been very successful in getting clients fitter, the same cannot be said for long-term weight loss, weight management, reducing sedentary behaviour, reducing the incidence of chronic diseases or convincing more people to adopt a more active lifestyle.

As our knowledge of sedentarism increases, the suggestion is that it may no longer be possible to counteract the new mismatch between physical activity and sedentary behaviour by training for 30-60 minutes per day or three to five times per week at MVFP.

The overriding message is that sedentary time for >10 hours per day is a significant risk factor, irrespective of what we do for the rest of the day. While moderate-to-vigorous exercise is a critical component of good health, we should also recognise that additional extensive sedentary time is an independent risk factor and should be addressed separately. We need to also be active all day, not just for 2-5% of our waking time. The obvious conclusion is that exercising three times per week to gain three hours of muscular activity is far from the perfect remedy for problems caused by

sedentary behaviour, which is commonly characterised by sitting down >350 times per week and reduced muscle activity for approximately 70 hours per week.

To overcome the new mismatch diseases between our body and the new environment, multiple movements throughout the day at low-to-moderate levels of intensity are required and need to be inclusive of our lifestyle, as well as a formal fitness programme.

It is difficult for sedentary people to be motivated to join fitness programmes that have low penetration rates, poor retention rates and below average participation rates, given that the success of the behavioural change is based on sustainability and long-term participation. In sedentary groups, the new behaviour must become habit and be performed without any conscious effort or thought on a regular basis.

Armed with this new information, the impact of sedentary lifestyles should now be regarded as a legitimate component of health behaviour and fitness centre management.

A behavioural change programme that focuses on nurturing the client to reduce their sedentary time by substituting it with active periods in the home, work/retirement, transport and during leisure periods could initially be more successful.

The global fitness industry needs to recognise that sedentary time and physical activity are independently protective against all-cause mortality and morbidity, not just for healthy people but also for the older adult, obese, chronically sick, unfit and inactive. By initially focusing on reducing sedentary behaviour and creating an active lifestyle, a large funnel is then created that could channel people into more formal fitness programmes and improve the penetration, retention and participation rates of current fitness programmes. **fp**

BIOGRAPHY ▶

Dr Paul Batman has been involved in health and fitness for more than 40 years as a university lecturer, vocational educator, author, researcher, international conference presenter and workshop facilitator. Over the last 18 years, Paul has built, owned, operated and sold two leading health and fitness vocational training institutes, and has received a Lifetime Achievement award for his services to the Australian fitness industry. Paul originally contributed to our *Network* articles back in the 1990s. drpaulbatman.com.au

