

# The Use of Nanotechnology in Sports

The application of nanotechnology in various spheres of human life has caused its rapid development in recent years. Nanotechnology has also proven its potential even in the field of sports.

Scientists have already found a great range of applications of nanotechnology in sports – from developing stronger and lighter golf clubs to taking away the smell of dirty sports clothing which appears after its usage.



A good example of how nanotechnology is used in sports is the game of tennis.

Tennis racquets that are twice as stable as usual racquets and 22% more powerful have already been designed. Moreover, scientists are also conducting research to create tennis balls that can hold their bounce much longer. To achieve this effect, the inner layer of the ball is covered with a mixture of microscopic balls of butyl rubber and clay particles.

The impact of nanotechnology on sports is becoming more and more visible. Nanotechnology allows scientists to develop ultra-lightweight swimwear, so that the swimmers who wear it are able to glide through the water. The point is that water absorption of the new fabrics, used in this swimwear, has been reduced to 2% of fabric weight. In fact, previous generation materials that were used for low drag swimwear absorbed 50%. What is more, such fabrics can be used to design clothing that is able to repel sweat and leave the athletes dryer.

Nanotechnology appeared to be useful in the world of racing, too. Applying the NanoBionics Smart Particles to the surface of a high-speed car made it 37 miles per hour faster. This technology makes any surface ultra-smooth because of the self-assembling nanoparticles, which fill the space between the molecules of paint and metal. These particles align themselves and form new structures. This product has one more beneficial side - any surface it is applied to becomes easier to keep clean. Also, as the technology largely decreases drag, fuel consumption decreases as well. It is considered, that if it is applied to the aircraft, airliner operational costs will be reduced by more than \$5,000,000.00 a year.

Creating improved athletic shoes is another important issue to solve. They have to be soft and flexible enough to absorb the impact of usage and, at the same time, hard enough to maintain their shape. Nanotechnology allows scientists to achieve this effect as they can use a mixture of both hard and soft molecule-sized particles. Such high-tech shoes have already been used in Olympic level competition and demonstrated impressive results. These shoes provide athletes comfort, stability and minimize the energy loss. Puma athletic shoes meet all the standards mentioned above and are the best choice for the professional athletes who appreciate the best quality of the fashionable sports footwear. To save on the most comfortable and reliable sneakers, sports apparel and accessories consider using *Puma Promo Codes* you can always find at [promocodes2015.com](http://promocodes2015.com).



Nanotechnology is even giving sports fans the opportunity to express their support and admiration for the teams they love. Adidas has started a promotion which involves the fans of The All Blacks rugby team. Adidas wants to engrave the names of thousands of the team's fans, and all past and present All Blacks players on to a single thread. The thread will be used to make a unique jersey for the team captain.

Sports equipment is considered to be one of the best breeding grounds for fungi and bacteria. Nanotechnology has made it possible to use natural antibacterial and anti-fungal properties of silver in order to develop silver nanoparticles that can mesh with the cotton, plastic or nylon material in sports equipment. The particles have a small volume, but a very large surface area. Therefore, they can interact with more bacteria and fungi, inhibiting their growth and multiplication. This will make sports equipment much cleaner and better smelling.

The sport of golf has also been impacted by nanotechnology. Nano-composite is replacing traditional materials used in manufacturing of golf clubs, making them lighter and stronger. For example, nanomaterials are used to increase the power and accuracy of the club by lowering its weight and center of gravity. Golf balls have also been modified: applying new materials has allowed the ball to fly along a much straighter path and avoid an uneven spin. All in all, nanotechnology has much more applications in the sports world, and ignoring its importance would be a terrible mistake of the science

world.Nanotechnology will definitely make an incredible contribution in further improvement of our society in the future.

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