

Eco-friendly medical splints make their debut in sports

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Onbone futuristic sports solutions introduce Woodcast a lightweight biodegradable water-resistant material to the athletic world and veterinary care



Injuries of varying degrees happen all the time in sports. Many of them can be treated on-site simply with supports of different kinds. The trouble has been that these supports are rigid, often uncomfortable and not very eco-friendly.

Woodcast is a lightweight biodegradable water-resistant material made from wood and biopolymers, originally developed to replace the plaster casts traditionally used in hospitals. The material, invented by the Finnish high-tech company Onbone, proved to be so versatile that it is now used in a wide array of usage areas, one of them being sports.

Woodcast offers an easy-to-use method to make supports that are comfortable to use and so thin that they fit also in shoes, for instance. Animals can also gain from Woodcast as a splinting material, since it is non-toxic and therefore not harmful to gnaw on.

“Only a hairdryer or heat gun is needed to shape the splint so that it fits perfectly, and optimally supports the injured area or the area that needs support for some other reason”, says Jimmy Takki, CEO of Onbone. “As splints made of Woodcast are light and compact, they can always be at hand for the medical team. The material can also easily be removed or reshaped simply by warming it up again.”

To speed up the development of sporting solutions using Woodcast, Onbone has joined forces with the Finnish Olympic Committee and its team of athletes, doctors, physiotherapists and coaches.

“Woodcast is not only about immobilizing and shielding broken bones or twisted fingers, but also about preventing damages”, Takki says. “Many injuries can be prevented if the athletes use individually shaped, lightweight supports of just the right stiffness. There are many competing products of this kind, but unlike Woodcast, very few of them can be formed for an exact fit or have such a large scale of different areas of use. Being made from wood and biopolymers, Woodcast is also environmentally sound.”

Onbone has already developed a new type of ankle and wrist braces, but there is a vast array of other sporting aids that can be done with the material. Tailor-made solutions such as laser-cut pair of hand swim paddles made from Woodcast can be future professional Swimmers aids.

Put to test at the Olympics

The fact that Woodcast can be used also in water, makes it interesting in many outdoor disciplines. Finnish Olympic Committee is now a key partner to Onbone regarding product development of new sporting aids aiming to improve the safety of athletes. Onbone splints and heaters will also be at the Finnish team's disposal in the next Olympics in Tokyo and Beijing.