# STANDARDS IN SPORT: TRIATHLON

This article in our series on recent changes in regulations regarding the clothing and equipment athletes can, and sometimes must, wear to compete in specific sports covers triathlon, the event that involves swimming, cycling and running and helped inspire the modern phenomenon of the Ironman competitions, which takes the idea to the extreme.



## Three in one

Regulation surrounding triathlon clothing is a complex issue, since three different sports (swimming, cycling and running) are combined into one event. Governing bodies for each individual sport necessarily bring their influence to bear on triathlon competitions. Perhaps their concern is that large discrepancies in permitted clothing or equipment could also produce unusual performance times, and it wouldn't do to have a triathlete swim or cycle faster, for example, than individual champions in those disciplines however unlikely that may seem.

There is no globally accepted legislative body that covers the combined aspects of the sport. The International Triathlon Union (ITU) and Olympic regulations generally carry most of the weight when it comes to regulations. The World Triathlon Corporation (WTC) also has some

*Shirts and shoes are essential wear for the cycling component of any triathlon.*

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influence. The basic tenet for triathlon is similar to decent restaurants: no shoes or shirt means no service.

## Moveable feast

Additional problems exist when trying to quantify triathlon clothing because the events take place in every conceivable climate. The term triathlon simply implies three events. There are countless variations on distance (sprint, Olympic, half-marathon, Ironman, Ultra). Frequently, the premier global triathlon events include off-road segments in the run portion of the race and some triathlons include mountain biking as a substitute for road biking and trail running as a substitute for road running.

Because of the cutting edge technology employed in the field of triathlon, the clothing and footwear can sometimes be one step ahead of regulation, in spite of any fears the authorities governing the three component sports may have. Lighter, stronger, and faster are the mantra of triathlon. Less is considered more and triathletes usually opt to wear the least amount of clothing required.

## Water wear

It is hard to evaluate clothing for triathlon without breaking down the apparel into each individual segment of the race, starting with the swim.

Generally, wetsuits are allowed in cooler temperatures and cannot exceed 5mm in thickness, while swimsuits are used for events held in warmer climates. For example, in TWC ruling, wetsuits are permitted if the water temperature is 24.5 degrees Celsius or lower. Nearly all wetsuits are made of neoprene material, and triathlon wetsuits generally require the most advanced neoprene on the market to give triathletes a performance edge. Suppliers with the technical capabilities to supply this material include Yamamoto Corporation from Japan and Sheico from Taiwan, with cutting-edge materials such as Aerodome from Yamamoto and Triply from Sheico. Yamamoto supplies only neoprene sheets; Sheico supplies the sheets too, but in addition it makes triathlon wetsuits. For wetsuits, the market demand is for soft and stretchy materials that help swimmers to glide and swim faster.

Swimsuits cannot have sleeves and may be worn over the biking or running apparel. Swimsuits must be made of a textile material and therefore exclude the use of neoprene and polyurethane, as is also the case now with swimmers competing in competitions recognised by that sport's governing body, Fina (see *Sports Specific, WSA, May-June 2012*). However, in triathlon, to help athletes move as quickly as possible from water to road, a zipper may be included in the swimsuit. Since swimmers are not in a controlled environment such as a pool (with lanes and officials) there are too many outside factors to control. Open-water swimming has many challenges but as in Fina competitions, the ruling bodies have chosen to level the playing field by eliminating buoyancy as a deciding factor.

## Quick change

For cycling and running, shoes and shirt are required.

If this summary appears simplistic in nature it is because the governing bodies of triathlon recognise one key concern, which is always of concern in triathlon… time. Triathlon competitions are not blink-and-you-miss-it events. Ironman competitions typically exceed eight hours in duration. The advantage gained by clothing is minimised by the duration and distance of the event.

The bike segment is heavily regulated with regard to the actual bike. There is little thought given to clothing beyond common decency and health and wellbeing. A time-trail speedsuit would provide an aero dynamic advantage but would cost tremendous time in the transition to put it on and take it off. Speedsuits provide only a slight time advantage over bare skin while adding unnecessary weight.

The run presents a similar conundrum. A track speedsuit used in a 100-metre dash adds weight and friction, which could become a hindrance rather than a help when used over longer distances. This is part of the reason why you never see marathon runners wearing speedsuits; the very thought seems ridiculous.

The keys to technical triathlon apparel are fit and comfort. Fabrics that can provide exceptional levels of support, cooling, stretch, and friction-resistance are at the forefront of triathlon design. If you can add durability and easy-care qualities you'll have a market-leading fabric.

In summary, the various regulating bodies for triathlon allow a fairly wide range of apparel. Triathletes are free to choose from many brands that offer the best fit and functionality as long as they can find the right balance between permitted performance edges and penalty in slower transition times.



*A triathlon suit from Sheico. Triathletes are permitted to wear wetsuits for the swimming component of a competition if the water temperature is 24.5 degrees Celsius or less.*

Sheico

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