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## Gut microbiota, food intolerance and sports performance

Gill Hart

York University Science Park, UK

Every individual has their own distinctive pattern of gut microbiota whose functions include enhancing the way we absorb nutrients and vitamins, converting the food we eat into valuable by-products, working with the immune system protecting against inflammation and increasing ability to access fat as fuel. If the gut microbiology is not optimised then this can lead to increased gut permeability; the movement of gut microbiota and their products, and incompletely digested nutrients such as food proteins; linked with conditions such as digestive complaints, low energy, and musculo-skeletal problems. Diet is key to improving gut condition and food-specific IgG antibodies can indicate gut damage has occurred and promote inflammation across the body. A clincal trial was carried out, which tested a personalised diet approach adapted for food-specific IgG reactions, involving 24 first team members from top rugby league club Wigan Warriors. The trial aimed to address symptoms such as fatigue, muscular-skeletal pain, maintaining weight gain, alongside migraine, low energy, joint pains, skin and respiratory conditions and digestive complaints. The study revealed that 58% of the players participating felt their symptoms negatively affected their on-pitch performance; some team members had problems for over 10 years. 67% felt their performance improved as a direct result of their new diet. There is a correlation between diet, food intolerances and performance. Dietary optimisation is needed as part of a sports programme. An optimal diet requires a personalised approach, taking food reactions into account. Food-specific IgG testing can be used to help understand the root cause.

teamdoctors@aol.com