Warning.
Although genetic testing can provide important information for the diagnosis, treatment, and prevention of health conditions, there are limitations. For example, if you are a healthy person, a positive genetic test result does not mean that you will develop a health condition other than your current one. On the other hand, in some situations, a negative result does not guarantee that you will not have a certain disorder. Test results are intended for educational purposes only and not for diagnostic use. Any results from the analysis of genome sequence information that may be considered medically relevant must be confirmed using other tests (analysis). If you have questions or concerns about what you learn from these informative genome sequence tests, you should talk to your doctor or a licensed genetic counselor.

Physical and mental athletic performance.

Genetic factors play a key role in athletes' success. The impact of genetic determinants in the athletic performance of individuals have been widely studied and the last works on this domain point out that both physical and mental aspects are important for athletic performance. As we all know, DNA is a double helix, which contains two copies of the genome, one that comes from the mother and is contained in her oocytes, and the other from the father in his spermatozoa. At the time of conception, the two copies unite in the maternal oocyte, after the spermatozoon has injected its copy into the oocyte itself to give life to a new organism. The test analyzes both copies of DNA which can be changed or not in one or both strands of DNA producing genotypes with different biological activity.
On the **physical aspect** the D/I polymorphisms on the angiotensin-1-Converting Enzyme (ACE) is the more recognized to influence physical activity, especially when comparing sedentary and high-level performance athletes. The ACE gene codes for a protein, angiotensin-1-converting enzyme, which is a key element of renin–angiotensin-1 system, responsible for blood pressure homeostasis. A significant association has been found between **elite endurance** individuals and the ACE II genotype compared with healthy inactive controls. Specifically, runners and triathletes were associated with the II genotype compared with controls. Additionally, endurance swimmers were associated with the II genotype compared with short-distance, power swimmers.
On the **mental aspect** the *Fatty Acid Amide Hydrolase* (FAAH) rs324420 is a polymorphism thought to play roles in neural functions and has been previously found to be associated with athletic performance in shaping anxiety-like behavior and affecting leadership. Fatty Acid Amide Hydrolase (*FAAH*) rs324420 AA or AC genotype have been found three times more likely to be present in super athletes. The gene FAAH has been associated with pain tolerance and stress which are features with implications for sports practice. The fatty acid amide hydrolase protein, encoded by the FAAH gene, is an enzyme involved in the metabolism of endocannabinoids. The protein is recognized for breaking down the metabolite N-Arachidonoyl ethanolamide (Anandamide, AEA), which activates the cannabinoid type 1 receptor (CB1). This could be attributed to a higher pain tolerance and better stress coping, which may be useful for training and competition strategies.

Scientific literature.
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