

HOT GENES

How genetics can play a role in your risk for heat illness



HEAT ILLNESS CAN HIT YOU LIKE A SLEDGE HAMMER. AND IF YOU'RE GENETICALLY PREDISPOSED, IT WILL BE EXCEEDINGLY DIFFICULT FOR YOU TO DUCK OUT OF HARMS WAY.

Original Research
Muldoon, S., et al.
Identification of risk factors for exertional heat illness: A brief commentary on genetic testing. *Journal of Sport Rehabilitation* 16:222-226, 2007.

With thousands of athletes training and competing in hot environments in this world, it is inevitable that some of them are going to be struck with some sort of heat illness at some point. Often, this can be due to modifiable risk factors, such as dehydration, lack of heat acclimation, or uniforms that keep the heat inside (see [HEAT RISK](#) for a list of these risk factors). This implies that heat illness can be prevented. For most people, that is true. However, some athletes may get recurrent heat illness despite taking all the preventive measures that everyone else on the team takes. The athlete may be well hydrated, acclimated to the heat, wearing appropriate clothing, etc., but still gets hit by the heat, while teammates do not. If this happens, genetics may be playing a role.

Power Key: malignant hyperthermia, genetics, heat illness prevention