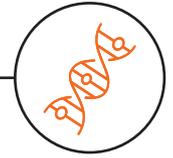


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# Ethical dilemmas in genetic testing

Some of Spain's leading football clubs and their youth training academies perform annual health and wellness tests on their players to develop targeted training programs and personalized diets to maintain high performance.



**Some clubs use genetic testing so they can also identify any predisposition to certain diseases or conditions such as bone fragility, diabetes or heart problems.**

The football clubs' health professionals typically look at diet-related insights such as lactose and gluten tolerance, carbohydrate and fat responses, sleep quality, injury risk and recovery profile. Some clubs use genetic testing so they can also identify any predisposition to certain diseases or conditions such as bone fragility, diabetes or heart problems. One of the most significant conditions is malignant arrhythmia which can cause sudden death. High impact exercise is not recommended for individuals with this condition.

The health department of one high-profile club recently encountered a big dilemma when it discovered that a highly talented member of its female youth academy, with strong prospects for a future in the main club, carried two gene mutations that could make her susceptible to developing malignant arrhythmia.

The doctors and representatives of the club's management met with the young footballer, who was only 15 years old, to explain the situation. After a number of meetings to discuss the issue with her, the club decided that, in spite of her impressive talent and potential, they could not put her forward for selection for the main team as they wanted to prevent her premature death.

Clearly there are issues associated with genetic testing. The young footballer might never have known about her condition if the club had not performed the genetic testing and she will now have to declare this condition for example in job applications and medical insurance claims. Although carrying a genetic condition does not necessarily mean the footballer will develop the disease, it may mean that other football clubs do not want to take the risk even if she herself is prepared to.

At the end of the day, open communication by those carrying out genetic testing and informed consent from those being tested will be extremely important as genetic health forecasting becomes more prevalent in the workplace.