Investigating the influence of altitude on training to improve sporting performance

LOCATION: Sierra Nevada, Granada.

LENGTH: 1'43"

SUMMARY: The University of Granada is leading the project 'Hi-Power' in which international judo players are taking part. With the collaboration of the University of Ljubljana in Slovenia, and the participation of researchers from the Sierra Nevada High Performance Centre (owned by the National Sports Council) the study seeks to test whether training at altitude improves speed in certain moves.

VTR:

An investigation led by the University of Granada is studying the influence of altitude on muscle strength training and how this is transferred to technical judo moves. For this reason, international judo players have come to the Sierra Nevada High Performance Centre.

Belén Feriche
University of Granada Researcher

"We are trying to test rapid strength training under conditions of moderate real hypoxia."

The study hopes to confirm that, by training at altitude, you can achieve greater speed in higher strength moves.

Belén Feriche
University of Granada Researcher

"Training at real altitude, not simulated altitude, could have an interesting advantage; from the point of view that they should be able to do technical moves more quickly."

For the coaches, this study may provide significant support in improving the athletes' performances.

Sugoi Uriarte
Judo coach

"We're excited about this project. If the results turn out as we hope, and strength is increased by 10%, truthfully for me, as a coach, it's going to be very rewarding."

In the study, this group of judo players live and train at high altitude, at the Sierra Nevada High Performance Centre, whilst another group does the same at sea level in Valencia. Both groups do the same training, to test the effect of altitude on different variables, such as acceleration and speed in technical moves.

Ramón Zarco
Judo player

"At first, when we had just arrived, we took three steps and already we were short of breath, but little by little, as the days have gone by, we've noticed that we've improved quite a lot. In the study on leg strength, we've noticed big changes when lifting weights."

This project, called 'Hi-Power', is being carried out in collaboration with the University of Ljubljana in Slovenia.