

Scientists propose new approach to hitting the gym

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James Cook University sports scientists are warning that fatigue from weight training can carry over to endurance training and the two activities must be better coordinated to maximise athletes' performance.

JCU's Dr Kenji Doma was part of a team examining concurrent [training](#) - which features both [resistance](#) (eg weights) and endurance training (eg running) on the same or separate days.

"The consensus is that concurrent training is beneficial for endurance development. But we found that if appropriate recovery is not accounted for between each training mode, then it may impair endurance development," he said.

Dr Doma and colleagues have a new paper out in the journal *Sports Medicine*. He said they found studies showing reduced performance by athletes, including runners and cyclists, even several days after a single resistance training session.

He said the physiological stress caused by a typical resistance training bout of 40 to 60 minutes

can continue for several days post-exercise, as opposed to a full recovery within 24 hours following a typical endurance training bout.

"We want to increase the awareness of resistance training-induced fatigue in the hope of encouraging coaches to think about aspects such as the order of the training, the recovery period, training intensity, etc. We're trying to limit the carry-over effects of fatigue from resistance to [endurance](#) training sessions," he said.

Dr Doma said the group was not saying that concurrent training should be discontinued.

"There are great benefits to it, but there can be some hidden dangers too. What we want to see is [fatigue](#) from resistance sessions minimised so there can be even more benefits gained."

He said the group could not tell athletes a specific [recovery](#) time as that was dependent on the individual, the code, and where the athlete was in the training cycle.

More information: Kenji Doma et al, Implications of Impaired Endurance Performance following Single Bouts of Resistance Training: An Alternate Concurrent Training Perspective, *Sports Medicine* (2017). [DOI: 10.1007/s40279-017-0758-3](https://doi.org/10.1007/s40279-017-0758-3)

Provided by James Cook University

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