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Media Statement

COMBINATION THERAPY AIMS TO AID STROKE SURVIVORS

West Australian scientists are trialing a combination therapy they hope could tackle arm coordination challenges common in stroke survivors.

The study, being carried out by WA's world-leading Neurotrauma Research Program, based at the Western Australian Institute for Medical Research (WAIMR), was for the first time using two established therapies – neuromuscular electrical stimulator treatment and bilateral movement – in tandem.

Co-investigator Dr Barby Singer said it was hoped combining the therapies would boost muscle coordination.

“Because stroke usually affects one side of the body, survivors often find that control in one arm is very limited, leading to clumsiness and in-coordination,” Dr Singer said.

“We know that electrical stimulation encourages the recovery of arm muscles by strengthening them and reconnecting pathways between the brain and the hand, but we also know that movement control in the arm may still be inhibited.

“This is because the unaffected side of the brain is overactive as it tries to carry out all movement functions; we hope this can be overcome by combining electrical stimulation and bilateral movement – which involves using both arms together to encourage both sides of the brain to talk to each other.

“The idea is that the electrical stimulator will ‘warm up’ the muscles so the person can then undertake simple functional tasks with both arms, such as chopping a tomato or opening a can of food.”

Dr Singer said the trial, which was already underway, was making great progress, but was still in critical need of more volunteers.

“We’re keen to hear from anyone who’s suffered a stroke at least six months, but not more than five years ago and who has at least a flicker of movement in their stroke affected wrist and hand to consider joining the study as it could hopefully improve their own recovery as well as that of others in the future,” she said.

Research principal investigator Dr Andrea Loftus said volunteers would take part in a six-week home-based trial and a small number of follow-up sessions.

“Volunteers are asked to use an electrical stimulator once a day for 15 minutes from the comfort of their home and then carry out a range of everyday tasks – like picking up things with both hands – for 15-20 minutes,” she said.

“A researcher will visit them at home once a week to review their movement to see if their muscle coordination is improving and modify the exercises as needed.”

The project is one of a number of cutting-edge research projects tackling brain and spinal cord injuries which are being undertaken by NRP. The projects have been made possible thanks to an \$8 million funding boost over five years from the State Government.

National Stroke Week runs from 14 to 20 September.

To find out more about the study or to take part, please contact 9224 0229.

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