

HIPS/23/04 – AQUA STEPS: AQUATIC exercise THERAPY for fall prevention in older adults – A feasibility study.

One-third of people aged 65 years or over fall every year. Thus, more than 4 million people fall each year in the UK, which is approximately 11,000 people daily. Falls reduce quality of life, lead to nursing home admissions, cause about 90% of hip fractures and half of deaths due to injury. The annual NHS and social care cost for fall-related injuries is more than £3.3 billion.

Several factors that increase fall risk can be improved: balance, muscle weakness, mobility and physical function. Exercise on land has a positive effect on these factors, can reduce falls by up to a third and is recommended by the NHS for fall prevention.

Aquatic exercise can also improve many of these factors, and has some advantages compared to exercise on land. For example, buoyancy reduces spine and joint loads and allows exercising without having to support one's weight, while the pressure of the water on the body assists with balance and mobility. It may therefore be superior to exercise on land, and preferable for people who find land exercise challenging or have high risk/fear of falling.

High-quality research on aquatic exercise in fall prevention is scarce. We will design and deliver an aquatic exercise intervention for people with high risk of falls. We will assess whether people are willing/able to participate and complete the intervention, we will have a preliminary look at the programme's effects on falls risk and compare it with an established land exercise programme delivered by Edinburgh Leisure (Steady Steps).