

## Early Intervention for Post-Stroke Spasticity (PSS)

Spasticity can occur within a few days after a stroke. The incidence of measurable spasticity in the upper limb varies between 4 and 24% as early as two weeks post stroke and 27 and 40% at six months. So around half the patients who will develop spasticity can be identified as early as two weeks post stroke.

Early predictors of spasticity development include reduced sensorimotor function and sensation, moderate increase in muscle tone at baseline, low Barthel Index at baseline, hemispasticity, involvement of more than two joints at first follow-up, and paresis at any assessment point.

Whilst physical management of PSS often occurs early, medical intervention for PSS usually does not occur for many months after the stroke. The consequences of delays in the management of PSS can result in changes in the rheological properties of soft tissues and ultimately the development of contractures.

Studies looking at early PSS intervention with BoNT will be discussed, suggesting that early use of BoNT in conjunction with physical management may lead to the prevention of rheological changes and improved outcomes.