

## Grade 5 Manipulation Consent Form

Grade 5 manipulations are a treatment technique in which a fast, small amplitude, passive manual mobilization of a joint is used to gap one or more synovial joints with the aim of improving joint mobility and reducing pain.

Manual therapy treatment (Manipulation, mobilization or soft tissue techniques) are recommended by NICE in the management of back pain as part of a treatment package.

### Indications for a Grade 5 Manipulation include:

- Stiffness
- Reduced Range of Movement
- Pain
- Muscle spasm

**In very rare cases the following complications may occur as a result of having a grade 5 joint manipulation:**

- Stroke, Spinal cord compression, Cauda Equina Syndrome
- Disc herniation, disc prolapse, nerve root compression, fracture
- Local pain, headache, dizziness, nausea, fainting

*The likelihood of developing any serious side effect following manipulation is extremely rare; the incidence of having a stroke after cervical manipulation is 1 in 20,000 to 1 in 1 million, the incidence of cauda equina after lumbar manipulation is less than 1 in 1 million manipulations (Assendelft et al. 1996)*

**There are some occasions where a manipulation should not be performed. Please let your physiotherapist know if you have suffered from any of the following, either previously or currently:**

- If you do not consent to a manipulation
- Bone tumour
- Infection
- Congenital Defect
- Long term steroids
- Inflammatory Condition
- Fracture
- Osteoporosis
- Cerebrovascular condition
- Cervical Myelopathy
- Cord compression
- Cauda Equina Syndrome
- Nerve root compression
- Neurological Deficit
- Cervical Artery Dysfunction
- Aortic Aneurysm
- Haemophilia

**There are also some circumstances where extra caution needs to be taken, although a manipulation can still be performed:**

- Previous adverse reaction
- Disc prolapse
- Pregnant
- Under 16's
- Spondylolisthesis
- Vertigo
- Hypermobility

### Patient Consent

The Physiotherapist has explained the treatment process of spinal manipulation to me including the risks, benefits, material risks & alternatives. I have answered all of the above questions to the best of my knowledge. I give my consent to the use of the spinal manipulation for my treatment.

## **Cervical Arterial Dysfunction and VBI Signs and Symptoms**

- The 3 N's: Nystagmus, Nausea, Numbness
- Gait disturbances
- The 5 D's: Dizziness, diplopia, dysphagia, drop attacks, dysarthria
- Tinnitus
- Occipital headaches
- Tingling in the upper arms
- Pallor
- Blurred vision
- Fainting

## **Major Risk Factors for CAD**

- Hypertension
- Hypercholesterolemia
- Diabetes
- Hypothyroidism
- Tumour
- Vertigo
- Menieres
- Cervical dysfunction
- Labyrinthitis

## **Protocols for CAD**

After subjective identification of any potential CAD symptoms, further questioning must reveal the type, duration, frequency, degree and status of symptoms.

- Check for any aggravation of symptoms with head movements
- Check the nature and type of any associated symptoms, especially headaches
- Check for any previous medical history of migraines, epilepsy, cardiovascular history, head injuries, stroke, and vestibular problems.

Specific CAD tests have been found to hold little predictive value in the incidence of onset with manipulation. Therefore, judgement on when to use manual techniques should be based on information gained during a thorough subjective examination, with considered weighing up the presence of risk factors

Kerry et al 2008

Cranial Nerve Testing can be used as part of a Neurological Examination to assess cranial nerve function as this may be affected by Cervical Arterial Dysfunction. See the table below:

Nerve	Evaluation	Associated conditions
I: <a href="#">Olfactory nerve</a>	<p><a href="#">Smell</a> is tested in each <a href="#">nostril</a> separately by placing stimuli under one nostril and blocking the opposing nostril. The stimuli used should be non-irritating and easily identifiable. Unilateral loss indicates a possible nerve lesion or deviated septum.</p> <p>This test is usually skipped on a cranial nerve exam.<sup>[1]</sup></p>	<a href="#">meningioma</a>
II: <a href="#">Optic nerve</a>	<p><a href="#">Visual acuity</a> is tested in each <a href="#">eye</a> separately. The patient is asked to read progressively smaller lines on the <a href="#">near card</a> or <a href="#">Snellen chart</a>.</p> <p><a href="#">Visual fields</a> are assessed by asking the patient to cover one eye while the examiner tests the opposite eye. The examiner moves the finger in each of the four quadrants and asks the patient to state when the finger is seen in the <a href="#">periphery</a>. The examiner's visual fields should be normal, since it is used as the baseline.</p> <p><a href="#">Pupillary light reflex</a> The patient stares into the distance as the examiner shines a <a href="#">penlight</a> into each <a href="#">pupil</a>. Pupillary constriction is tested for on the eye examined (direct response) and on the opposite eye (consensual response).</p>	<a href="#">Optic neuritis</a>
III, IV, VI: <a href="#">Oculomotor nerve</a> , <a href="#">Trochlear nerve</a> , <a href="#">Abducens nerve</a>	<p>Extraocular movements: First, <b>inspect</b> for eye position and <a href="#">nystagmus</a>. The pupil size is measured, its shape and any asymmetry is tested. A commonly used abbreviation to describe normal pupils is <a href="#">PERRLA</a> (pupils equal, round and reactive to light and accommodation).</p> <p>The examiner tests ocular movements by standing one meter in front of the patient and asking the patient to follow a target with eyes only, and not the head. The target is moved in an "H" shape and the patient is asked to report any <a href="#">diplopia</a>. Then, the target is held at the lateral ends of the patient's visual field. Nystagmus is tested for. One or two beats is a normal finding. The <a href="#">accommodation reflex</a> is tested by moving the target towards the patient's nose. As the eyes converge, the pupils should constrict.</p>	

<p>V: <a href="#">Trigeminal nerve</a></p>	<p><b>Light touch</b> is tested in each of the three divisions of the trigeminal nerve and on each side of the face using a cotton wisp or tissue paper. The ophthalmic division is tested by touching the forehead, the maxillary division is tested by touching the cheeks, and the mandibular division is tested by touching the chin. Be careful not to test the mandibular division too laterally, as the mandible is innervated by the <a href="#">great auricular nerve</a> (C2 and C3). A common mistake is to use a stroking motion, which will trigger pain and temperature nerves. Instead, a point stimulus should be applied. For <b>pain and temperature</b> repeat the same steps as light touch but use a sharp object and a cold tuning fork respectively.</p> <p><a href="#">Corneal reflex</a> is conducted along with the <a href="#">facial nerve</a> section of the test. Note the sensory innervation of the cornea is provided by the <a href="#">trigeminal nerve</a> while the motor innervation for blinking the eye is provided by the <a href="#">facial nerve</a>.-</p> <p><a href="#">Muscles of mastication</a> (<a href="#">temporalis</a>, <a href="#">masseter</a>) should be inspected for atrophy. Palpate the temporalis and masseter as the patient clenches the jaw.</p>	<p><a href="#">trigeminal neuralgia</a></p>
<p>VII: <a href="#">Facial nerve</a></p>	<p>Inspect for facial asymmetry and involuntary movements. Motor</p> <ol style="list-style-type: none"> <li>1) Raise both eyebrows</li> <li>2) Frown</li> <li>3) Close both eyes tightly so that you can not open them. Test muscular strength by trying to open them</li> <li>4) Show both upper and lower teeth</li> <li>5) Smile</li> <li>6) Puff out both cheeks <ul style="list-style-type: none"> <li>• Sensory : test for taste</li> </ul> </li> </ol>	<p><a href="#">Bell's Palsy</a>, <a href="#">Ramsay Hunt syndrome</a></p>
<p>VIII: <a href="#">Vestibulocochlear</a></p>	<ul style="list-style-type: none"> <li>• Hearing: Whisper numbers in one ear as patient covers the other and ask the patient to repeat the numbers. Alternatively, have patient close their eyes and say "left" or "right" depending on the side from which they hear the sound. Vigorously rub fingers together in one ear at a time to produce rustling sound.<sup>[2]</sup> Conduct the <a href="#">Rinne test</a> and <a href="#">Weber test</a>.</li> <li>• Vestibular Function</li> </ul>	<p><a href="#">acoustic neuroma</a></p>
<p>IX and X: <a href="#">Glossopharyngeal</a> and <a href="#">Vagus</a></p>	<ul style="list-style-type: none"> <li>• Visualizing uvula deviation away from affected side on articulating "AHH" with tongue depressor.</li> <li>• Palatal articulation "KA"</li> <li>• Guttural articulation "GO"</li> </ul>	<p><a href="#">Lateral medullary syndrome</a> (IX)</p>
<p>XI: <a href="#">Accessory nerve</a></p>	<ul style="list-style-type: none"> <li>• Shrug shoulders</li> <li>• Turn head from side to side</li> </ul>	

XII: [Hypoglossal](#)

- Stick out tongue and move it to one side, then the other<sup>[3]</sup>
- Inspect for tongue atrophy, fasciculations or asymmetry in movement or appearance

**References:**

- Assendelft, V.J., Bouter, L.M. and Knipschild, P.G., 1996. Complications of spinal manipulation. *J Fam Pract*, 42(5), pp.475-480.
- Kerry, R., Taylor, A.J., Mitchell, J. and McCarthy, C., 2008. Cervical arterial dysfunction and manual therapy: a critical literature review to inform professional practice. *Manual Therapy*, 13(4), pp.278-288.