McGill Method Certification Study Guide

Initial eligibility check: Are you a health care practitioner or fitness professional in good standing with your professional college or association? If yes, then you are eligible to pursue McGill Method Certification!

Tasks to complete:

1. **Read professor McGill's textbooks: Back Mechanic, Low Back Disorders, Ultimate Back Fitness and Performance**
2. **Complete all three McGill Method Courses: "McGill Method 1: Foundation for the pain-free back", "McGill Method 2: Assessment", and "McGill Method 3: Enhancing performance". These courses must be attended in-person or online within 5 years of taking the certification exam. Online courses must be accompanied by attendance in a skills development workshop for each course.**
3. **Review points of reflection from each section in the online courses.**
4. **Purchase and schedule written and practical exams through https://redelivery.ca/mcgill-method-certification/.**

Knowledge Check:

Competency	Tick when confident
Lumbar spine function and injury mechanisms	
Functional anatomy	
Corrective exercise prescription, including when and how to progress and regress the client in their program	
Performance training concepts	
Competent in identification of red flags and appropriate referral procedures	
Adept at thoroughly taking a client's history, knowing what questions to ask and how to interpret the responses	
Able to identify the movements, postures and loads that are (potential) pain triggers, specifically the 9 tests shown in Back Mechanic, coach the client in understanding these (potential) pain triggers and, if possible, relate them to a mechanism that will empower the client to make decisions in the future	
Proficient in demonstrating and coaching a remedial core stabilization program (e.g., cue appropriate bracing strategies and coach progressions of the Big 3, as well as gluteal and lat activation), together with appropriate distal mobility	

Exam Details

(1) **The written exam is composed of a series of short answer questions in paragraph form. You have 90 minutes to complete 10 questions (about 9 minutes per question). Question categories include, but are not limited to: injury mechanisms, functional anatomy, movement strategies, exercise prescription and literature. Questions are either worth 5 or 10 marks -- the weighting of each question should indicate how much detail/knowledge demonstration/time is required for that question.**

(2) **The practical exam asks you to submit a video recording of a full initial patient assessment. Please include the entirety of the interview, physical assessment, findings shared with patient, and resulting program. We recommend uploading this in a couple shorter videos to YouTube as "unlisted" videos and sharing the links for us to view.**

***please note that your performance during the practical component is not only evaluated objectively, but also for a demonstration of soft skills, clinical skills, like a keen clinical eye, etc.**

We realize that there is no "right answer". We are assessing your logic and thought process and ability to discuss these.

Sample Exam Questions

Question: Injury Mechanisms

Regarding disc herniation, discuss: (a) the overarching injury mechanism; (b) what happens when you add twist; (c) what happens when you "bend" to one side; and (d) the progression of the injury after significant disc height loss.

General mark allotment: Marks given for discussion that may include the notions of……

(a) the most common cause is repeated motion (usually flexion) while under load, etc. Anatomical features such as disk shape and size matter. Discussion of the biological tipping point will assist here in that when below the tipping point the system remains robust but excessive loading loads to tissue damage (b) Twisting adds the risk of radial delamination in the disc (disc tears). Twisting causes one half of collagen fibers in terms of their ability to support loading and loss of strength/ability to bear load. Other answers may include notions of the disc bulge-herniation is more diffuse with twisting, more compression while twisting accumulates damage faster. (c) Bending one way usually causes the bulge to occur on the

opposite side of the disc (convex side) – this is most common in those who strength train. Occasionally very mobile people will experiencing buckling and a bulge on the concave side of the bend. This is seen more often in people who focus on, and practice yoga for example. (d) Over time the disc will stiffen up but is often associated with facet joint issues later. Answer may include discussion of evidence that at least 70% of normal disc height needs to be remaining in order for extension exercises such as the prone tummy lay to be effective (reducing nerve root entrapment, etc.)

Question: Functional Anatomy

Compare the effects of a neutral spine posture versus a flexed posture on the erector spinae muscles when lifting a heavy piece of luggage into the trunk of a car.

General mark allotment: Marks given for discussion that may include the role of the lumbar erector spinae muscles (longissimus and iliocostalis) to support shear forces in a neural spine but this is lost with a flexed spine. A general discussion of how Posture migrates stress from one tissue to another. Generally the neutral posture spreads out stress so that a single tissue does not cross the tipping point. Bending focusses the stress that, when excessive and crosses the tipping point, can lead to injury and pain.

Question: Movement strategies / Exercise prescription

Describe a style of walking that minimizes back loading and, often, pain. Describe the mechanism.

General mark allotment: Marks given for discussion of various mechanisms of fast-paced walking (in the context of static loading (mall-strolling) vs reciprocal dynamic loading), storage and recovery of elastic energy for enhanced efficiency created by arm swinging about the shoulders. A discussion up upright posture vs slouched postures would be beneficial based on the principle of reducing tissue load and tissue load sharing (expand), how the dis does well with gentle motion (expand). Also applicable would be the inclusion of backpack wearing and the biomechanical rationale behind this, as well as walking on uneven ground, and the biomechanical rationale behind this. Discussion may also include: coaching cues to first obtain an upright posture with minimal muscle activity required. The lightly brace the abdominals to see if this enhances relief or comfort. Then walk swinging the arms about the shoulders. Add control to the torso but unleash the laxity in the shoulder and hips.

Question: Practical Exam

First, be prepared to conduct the 8 tests in Back Mechanic on a client and discuss your findings. You may be asked to conduct two or more tests.

The interview portion with your client may reveal the following: Your client reports that their back pain gets ramped up throughout the day (mornings are their best time) and that prolonged standing and slow-paced walking increases their back pain. Based on this, what motion, posture or load intolerance (e.g., flexion-intolerance, extension-intolerance, motion-intolerance, compression-intolerance, shear-intolerance, etc.) do you suspect they may have?

Answer:

General mark allotment: Marks given for pattern recognition within a client's subjective history with respect to developing a working clinical hypothesis on what type of intolerance they may have – this pattern recognition is based on a biomechanical rationale that should be discussed with the adjudicator. For example, what may a pain ramp-up as the day wears on mean versus the morning being their worst time for pain? A: Usually the person is exceeding their current capacity – reduce cumulative load, restore capacity throughout the day etc. Why might prolonged standing and a slow-paced walk be increasing their back pain? Putting this all together, what intolerance(s) should be tested for objectively?

In this case more testing is required. The pattern described above fits that of a disc bulge candidate where any single activity performed too long causes pain – pain is relieved with frequent posture change. Note: we are looking for a discussion on this one indicating your command of the topic. A good answer would be to follow-up with the seated compression test then testing for joint instability. Keep converging on the answer to provide a foundation for a recommended program.

Another sample question:

With your model patient/client, demonstrate two provocative tests that would aid you in confirming or rejecting the motion, posture or load intolerance that you suspect. If the provocative tests are positive, what exercises or activities would you suggest they avoid, and what activities-exercises should they engage in?

General mark allotment*: Marks given for choosing appropriate tests, technique, coaching and cueing, interpretation of the test findings and linking then to a program you would create for that individual.

These tests may be requested or a case study may be presented to the delegate.

Sample question:

Assuming your working hypothesis with respect to the motion, posture or load intolerance and injury mechanism were correct, with your model patient/client, demonstrate what postures and positions of respite and spine-sparing movements you would show them and discuss why, how often you would recommend using them, etc.

General mark allotment*: Continuing to build off of the previous two sample questions and branching logic, the test taker would continue to be evaluated for connecting the mechanism with the intervention – do their intervention recommendations coincide with their working hypothesis in terms of motion, posture and/or load intolerance(s)? Marks given for choosing appropriate postures and positions of respite, including recommendations on why they are being given and how often to use them, as well as marks for coaching and cueing appropriate spine-sparing movements, and a similar discussion as to how and when to use them. In other words create a program.

An example follows: The 34 year old client reports the familiar pain in the right low back and buttock from sitting at the computer for longer than 20 minutes, but is completely relieved with a 20 minute walk. Their standing posture is characterized with chin poking and mild hip flexion. They tie their shoes while sitting on a bench, and perform piriformis and hamstring stretches throughout the day.

The program may start with an appropriate position of respite (may be a quite tummy lay while coaching relaxed breathing), spine hygiene of sitting with a lumbair, using the lunge to tie their shoes, a psoas stretch and thoracic spine extension stretch with appropriate programming, an appropriate form of the big 3 stabilizing exercises in a justifiable set-rep program, an interval walking program with justifiable intervals, and appropriate push pull exercises.

A bonus example for those who are quite skilled: A female squash player with suspected SI joint pain, a history of deep lunge training, and an incident of falling on ice 1 year prior. Tests may include the SI fist test, manual compression of the pelvic ring while laying and while standing and walking and lunging.

In the case of the squash player above, we would be looking for you finding the best position to be pain-free, and coaching appropriate spine hygiene drills to wind down stresses on the SI joints and pelvic ring, together with stabilizing strategies that reduce the pain.

In summary, we realize that there is no "right answer". We are assessing your logic and thought process and ability to discuss these.