

## FASTER AND MORE EFFICIENT WAYS TO IDENTIFY HIDDEN INJURIES AND DIAPHRAGMATIC PROBLEMS

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### ABSTRACT

Injury recall technique (IRT) continues to be one of the most important tools a doctor can use during treatment because of the way an injury can affect the body both locally and systemically. Sometimes an injured area that is causing a problem is evident, however many times it is not so apparent. The patient may be unaware of an injury since it is no longer troublesome, the injury may have been forgotten, or perhaps multiple injuries are present but the doctor is unsure of which one to check first. Additionally, many patients develop injuries from prolonged compensatory patterns developed over months or years of dealing with some dysfunction, perhaps even a problem originally created by another injury. These injuries can be increasingly difficult to find, like the proverbial “needle in a haystack”. Sometimes they are at such specific and localized areas, the doctor will be unaware of where to treat the injury without some help. For example, injuries related to the diaphragm are common, but often hard to find. Using some quick and simple tests will help narrow down these less-than-obvious injuries that often plague a patient and inhibit a full recovery.

Key Words: injury recall technique, autogenic facilitation, diaphragm, psoas, medial arcuate ligament

### INTRODUCTION

IRT involves a correction by opening the mortis joint for areas of injury below the neck and flexing the atlanto-occipital joint for areas of the head and neck, while either the patient touches the area of injury, the doctor stimulates the area of injury, (cold, pressure, pinching), or origin-insertion technique is performed to the area of injury. The indication to know when to use IRT is when autogenic facilitation, (stretching of the muscle spindle cell), does not strengthen a weak muscle. Currently, the only known exception to this rule is if autogenic facilitation does strengthen the weak muscle, there still may be an injury located in that muscle itself. Once a weak muscle is found to need IRT, the doctor must find the area of injury. This is most easily done by rubbing over the area of suspected injury or having the patient touch the area. If either strengthens the weak muscle, then that is the area where IRT is performed.<sup>1</sup>

However, when autogenic facilitation does not strengthen a weak muscle the area of injury is not necessarily obvious. The doctor knows only that there is an injury somewhere in the body, but the precise location remains unknown, especially when the weak muscle tested shows no sign of injury or past trauma, and no history indicates an

injury has occurred. This is where some useful “tricks” can help the doctor locate the area of injury.

Injuries to the diaphragm are often overlooked. Since the diaphragm is constantly at work, it is particularly good at masking any symptoms of past or present trauma. The diaphragm can become injured from an impact such as one occurring from a car accident or sports related collision (hockey, football). Improper breathing, often shallow, may result from an injury to the diaphragm. It is also possible that over time improper breathing could cause a diaphragmatic problem that the body perceives as an injury. The psoas muscles and the diaphragm share a common connection via the medial arcuate ligament. This tendinous arch arises from the fascia covering the psoas major and its fibers converge to a tendon that ascends to the diaphragm.<sup>2</sup> This connection will be useful in helping the physician find hidden diaphragm problems.

## DISCUSSION

When a person injures an area, the first instinct is to examine the site of the injury and rub the affected area. This is the reason why having the patient touch or rub the area works so well in locating the injury site. The eyes can also be used to help find the [hidden] injury. Walter H. Schmitt, DC, has noticed that by having the patient look at the area of injury, the weak muscle will strengthen. This tends to work very well, at most times, but there are exceptions. When a weak muscle is found that does not respond to autogenic facilitation, the doctor can have the patient look in different quadrants of the body (up & right, up & left, down & right, down & left) as well as directly down (towards the feet) and directly up (towards the forehead). If there is an injury in the area of gaze, the weak muscle will strengthen. They do not need to see the exact injured area - looking in the direction is all that is necessary. The following are three exceptions this author has noted when using this “eye gaze” technique: an injury in the neck and head, a weight bearing injury in the trunk or lower extremities, an injury involving a joint in any extremity.

There is also another quick and easy test first observed by this author that the doctor can perform to narrow down where the injury may be. It simply involves performing the IRT correction – either to the atlanto-occipital area or either mortis joint – and looking for strengthening of the weak muscle. During this test, there is no need for the patient or doctor to do anything else; it is only performed to narrow down the area of injury. For example, if there is a weak pectoralis sternal muscle that does not respond to autogenic facilitation and the doctor performs IRT on the left mortis joint and this strengthens the pectoralis, then this would indicate that the injury is somewhere on the left side of the body, below the neck. If the doctor performed IRT to the atlanto-occipital area and this strengthened the pectoralis, then the injury would be in the neck or head region. This, like the eye gaze technique, is used only to help find the injury. IRT correction is always the same no matter how the doctor goes about finding the actual injury.

Often an injury either occurred while the person was weight bearing, (sitting or standing), or the injury is now currently affecting their body in such a position. In this case, having the patient look at the suspected area of injury often will not help find the problem. Furthermore, other procedures, such as rubbing over suspected areas or having the patient touch these areas, prove fruitless as the injury is a compensatory pattern or an old forgotten injury that is affecting the patient's gait or the supporting muscles of gait. The way to check for this is to have the person stand while testing the weak muscle. Autogenic facilitation should still not strengthen when they stand, (unless the injury was only a problem while the patient was lying down). Next, have the person shift his or her weight to one side, either the right or left leg. Check again for autogenic facilitation on each side. Often autogenic facilitation will only be present when the weight is shifted to one side. This indicates that the injury is on the opposite side, where stretching the spindle cell did not strengthen. If weakness still occurs on both sides during spindle cell activation, the injury is either exactly midline, (commonly spinal), bilateral, in the head/neck/jaw region, or in an extremity (often the one being tested).

Once the side is found that retains the negative autogenic facilitation, the field of gaze can be used to further narrow down where the injury is. This will now provide the anterior or posterior quadrant of the side where injury has been found. For example, if the patient puts more weight on the left leg (simply by leaning more to the left) and autogenic facilitation does not strengthen, then the injury is on the left. Next, they would look up and left or down and left. If up and left strengthened the weak muscle being tested, this would indicate an injury on the posterior left side of the body. The doctor can then begin rubbing over suspected areas in that quadrant, looking for the muscle to strengthen, while the patient maintains his or her weight to that side. Once found, performing IRT as best seen fit, (pinching the area, patient touch, origin-insertion technique), will correct the problem.

The weight bearing technique can also be used if there is a weight bearing related injury to the neck, often common in cervical disc lesions. The doctor can test for this by applying slight downward pressure (cephalic to caudal) on the top of the head and again check for autogenic facilitation of the muscle being tested.

Often, there is an injury that is causing a problem in one of the arms and weight bearing testing in this case would obviously be useless. Sometimes an injury in the leg can't be found because the weak muscle is in the leg and that muscle can't be tested for a weight bearing injury because the patient needs to be standing on that leg in order to test for such a problem (!). This is where a joint compression test will prove extremely useful, particularly with an ankle or foot injury that would not be found otherwise.

Once there is weak muscle showing a need for IRT, the doctor will challenge the suspected joint above and below, jamming the joint together, then immediately after perform IRT to the same side mortis joint. This can be done to a very small area, such as just above and below the elbow, or for the entire extremity, such as from the hand to the shoulder for a suspected limb injury. The area is pushed together with moderate force and immediately after, IRT is performed on the same side of the limb being checked. If the

muscle being tested strengthens, then the injury is in that limb and the doctor can narrow down the area of compression to a more specific location. The eye gaze technique will also now be effective, as it would often not have shown beforehand. For example, the patient can gaze in the upper left quadrant if the left arm is being compressed and if that strengthens the muscle being tested, then the injury is most definitely on that posterior side in-between the compressed challenge area. One can see how the hidden injury can quickly be smoked out! For an injury in the ankle or foot, the compression test along with the IRT challenge will often not work, since the IRT challenge often involves the affected area. In this case, the compression test can be used in conjunction with the eye gaze test simultaneously to find the area of injury.

Lastly, the diaphragm tends to be an ignored source of injury and it certainly should not be as it is the hardest continuous working muscle in the body along with the heart. Correcting an injury to the diaphragm will often lead to improved breathing and core strength, due to its integration with the transverse abdominal muscles. If the diaphragm is suspected as a part or all of an injury, then the test to verify this is simple - have the patient perform breathing cessation (stop breathing). If the diaphragm is related to the injury, the muscle tested which is not responding to spindle cell activation will become strong. Unfortunately, this only reveals that something is wrong with the diaphragm, not where in the diaphragm the problem is located. To find this, test the psoas. If the psoas is strong, once again have the patient cease their breathing (not breathe in or out and then hold their breath). One, or sometimes both, psoas muscles will be weak when the breath is stopped. Then the patient can perform the eye gaze test to see if the injury is on the anterior or posterior, left or right, side of the body. Anterior injuries are often in the diaphragm or along the psoas muscle, while posterior injuries tend to be deep into the quadratus lumborum where the lumbosacral arch lies, deep under the twelfth rib.

The psoas-diaphragm breath cessation test can be used to identify a suspected diaphragm problem, in general. If the psoas is weak when the breath is stopped, check spindle cell for strengthening. If negative, then there is an injury. If positive (the muscle turns on), then it is necessary to investigate other therapies to treat the diaphragm, such as Chapman's reflex along the sternum or spinal involvement.

## PROCEDURE

1. Identify a weak muscle and Autogenic Facilitation does NOT strengthen the weak muscle = need for IRT
  - a. Perform IRT on the atlanto-occipital joint
    - i. Strong = injury is in head or neck area
    - ii. Remains Weak = injury is elsewhere or weight bearing/joint involved; continue to 1b
  - b. Perform IRT on the right mortis joint
    - i. Strong = injury is on the right side of the body, below neck
      1. Have the patient look up and right or down and right to localize injury

- ii. Remains Weak = injury is not on the right side of the body, or is a weight bearing/joint injury; continue to 1c
  - c. Perform IRT on the left mortis joint
    - i. Strong = injury is on the left side of the body, below neck
      - 1. Have the patient look up and left or down and left to localize injury
    - ii. Remains Weak = injury is not on the left side of the body, or is a weight bearing/joint injury; continue to 1d
  - d. Perform breath cessation (patient does not hold breath, but stops breathing) while testing the weak muscle again
    - i. Strong = injury is in diaphragm; see 4 below
    - ii. Remains weak = injury is not in diaphragm
- 2. Have the patient stand and check for Autogenic Facilitation while:
  - a. Patient shifts weight to the right leg
    - i. Strong = injury is not on right side
    - ii. Weak = injury is possibly on right side
      - 1. Have the patient look up and right or down and right to localize injury while doctor tests muscle
        - a. Weak muscle turns strong = injury in that area
        - b. Weak muscle remains weak = no injury in that area; continue to 3.
  - b. Patient shifts weight to the left leg
    - i. Strong = injury is not on left side
    - ii. Weak = injury is possibly on left side
      - 1. Have the patient look up and left or down and left to localize injury while doctor tests muscle
        - a. Weak muscle turns strong = injury in that area
        - b. Weak muscle remains weak = no injury in that area; continue to 3.
- 3. With the patient supine test the weak muscle (\*general test – not with Autogenic Facilitation\*):
  - a. Compress suspected joint while performing 1a, 1b, or 1c
    - i. \*\* if the injury is compromising some or part of the mortis joint, the IRT test may not work (will not strengthen the weak muscle immediately after compressing that same joint); in this case, the field of gaze test will work while compressing
      - \*\*Example: Weak left biceps muscle. Doctor compresses area above the below the right ankle and then performs IRT. Biceps remains weak. The injury could still be in the ankle. Perform the compression test again (no mortis joint IRT) while the patient looks up and right, or down and right. If the injury is in the anterior or posterior right ankle, the weak left biceps will strengthen.

4. Suspected diaphragm injury
  - a. Strong psoas = weak with breathing cessation; or general weak psoas
    - i. Stretching psoas spindle cell = strong = No injury
    - ii. Stretching psoas spindle cell = remains weak = Injury
      1. Have the patient perform the fields of gaze to localize injury

## CONCLUSION

Autogenic facilitation of any inhibited (weak) muscle needs to be checked before any further treatment can continue. Not only do injuries have a dramatic effect on the body, locally and systemically, but testing with an injured muscle during treatment will often lead to inaccurate, confusing, and marginal results.

Injuries are not always obvious, particularly when a person has had a long time to compensate and adapt to an injury that may have occurred years prior. Performing IRT to narrow down the suspected area, using the eyes to further narrow down the quadrant or area, and testing via the weight bearing and the joint compression test will find the hidden injuries so the doctor may correct them. It is often these difficult to find injuries of which the patient may not even be aware, that are the ones which ultimately lead to the most dramatic improvements in health.

Finally, the exception to IRT that autogenic facilitation may strengthen a tested muscle if the injury is in the actual muscle being tested, is no longer a concern with the described procedures. The strengthening will no longer be present after stretching the muscle spindle of the injured/tested muscle with the joint compression technique; the muscle will remain weak, signifying a need for IRT in that area.

## REFERENCES

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