Massage for Post Surgical Recovery

- What is surgery and what is a typical recovery curve?
- How can medical massage help improve post surgical recovery?
- Making a Treatment Plan for Clients
- Treatment Demonstration
- Communicating a Treatment Plan & Giving Homework Alongside PT

Note: these reference slides will be available in the course after the webinar

Massage for Post Surgical Recovery

- What is surgery and what is a typical recovery curve?

The word “surgery” covers a LOT of different types of procedures, let’s look at some broad categories

- **The American College of Surgeons recognizes 14 surgical specialties: cardiothoracic surgery, colon and rectal surgery, general surgery, gynecology and obstetrics, gynecologic oncology, neurological surgery, ophthalmic surgery, oral and maxillofacial surgery, orthopaedic surgery, otorhinolaryngology, pediatric surgery, plastic and maxillofacial surgery, urology, and vascular surgery.**

- **Each category has many types of procedures that fit into it and that range from minimally invasive outpatient surgery such as removing a skin mole to life-saving highly invasive procedures such as the Whipple (which was performed on our guest client). And a broad spectrum in between.**

As MTs, we tend to be “anti-surgery”...however, many surgeries *are* actually are the best option

- **When I first started my career 17 years ago, surgery was often given as the 2nd intervention to pain, if the 1st intervention of pain medication failed to resolve the issue**

- **If pain medications failed, the older model required going through testing and imaging in stages, from x-ray, to MRI, *before* prescribing non-invasive approaches such as PT, acupuncture, and/or medical massage therapy**

- **These tests and images often showed structural anomalies that seemed to “require” surgery and surgery was often prescribed and performed before trying out non-invasive approaches**

- **However, more recent studies have shown that for many common surgeries, PT and other non-invasive interventions offered equal or better outcomes**

- **Additionally, due to the real problems that opioid addiction has caused throughout the world, many doctors and specialists are shifting towards trying non-invasive (and non-addictive) approaches first**

- **The traditional healthcare system seems to be coming back around to a “treat 1st non-invasively and see if the symptoms calm down” before making patients go through testing, imaging, and surgery**

- **This newer approach is preferable as it is best to avoid cutting into the body's tissues whenever possible to avoid the impact on movement**

- **However, there are still plenty of situations where surgery is the better or best option, especially when the alternative is loss of life, loss of function, or when function would be vastly improved vs the non-surgical options.**

- **Ultimately, surgery is always a compromise that improves some things in the body while negatively impacting others**

- **The choice to undertake a surgery should hopefully be only taken when the upside outweighs the downside, and when it would have a higher degree of benefits than non-invasive approaches**

What are the “cons” of surgeries?

- **Surgery generally involves some form of “cutting” into the tissue, which, unavoidably, kills healthy cells and leaves scar tissue**
- **Scar tissue is inherently less functionally useful than normal tissue, and will generally negatively impact ROM of the nearby joints**
- **In addition, during the recovery phase, surgery causes pain in the tissues creating a protection response which also limits ROM and potentially negatively impacts postural organization**
- **The cerebellum will change posture and re-organize movement patterns in an effort to avoid the pain (“compensation patterns”)**

What are the “cons” of surgeries?

- **Surgeons used to downplay these issues and act as if patients could return to normal life with little to no recovery needed**
- **The long term effect was that patients felt better in the short term, but new or relapse issues would occur months and years later as the compensation patterns built up in the surrounding tissues and areas**
- **The healthcare system has gotten wiser about this and most surgeons now prescribe post surgical physical therapy to improve long term results**
- **And while physical therapy in the post surgical recovery stage is absolutely helpful, it’s often not “enough” or recovery would be faster if performed alongside massage therapy**

How long will it take a patient to recover from x surgery?

- **This is a very complex question and can never be perfectly determined but can be estimated by a number of factors:**
    - **The level of invasiveness of the surgery**
    - **The overall health and fitness level of the client**
    - **The age of the client**
    - **How committed they are to working on recovery**
    - **Will the surgery limit the patient's ability to walk or do other activities that increase blood flow through the body?**
    - **Did the surgery introduce any unfortunate but necessary structural changes that limit function and/or ROM of any area of the body?**
- **In the next set of slides we'll go through each of these factors and look at examples and how the answers might affect how you predict recovery timelines for a client**

But first, what does it mean to “recover”

- **Helping clients define what a realistic recovery looks like is an important support**
- **For most clients, recovery means getting back to the life they had pre-surgery doing the activities they did without lingering symptoms that remind them of the injury**
- **And while many surgeries can have what feels like 100% recovery, ie “I feel as good or better than I did before and don’t seem to have lingering symptoms,” many simply cannot get there due to structural limitations**
- **Some surgeries won’t ever feel like 100% or will flatline at a lower feeling around 80-90% for a longer period before slowly improving again later**
- **Helping client manage their expectations while encouraging them to keep up with the recovery process is an important role we can play**
- **How else might we help to define what “recovery” means for clients?**

Level of Surgery Invasiveness

- **Surgeries can range from a very low key, barely invasive mole removal, to incredibly complex surgeries such as a thoracic aortic dissection repair, and everything in between**

- **In general, the less invasive the surgery, the quicker the recovery and vice versa**

- **In general, the less scar tissue is left over from a surgery, the quicker the recovery, and vice versa**

Overall Health & Fitness of the Client/Patient

- **The human body is constantly breaking down and being rebuilt**
- **Clients with a higher level of overall health and fitness can devote more of their body's resources to recovering from the surgery, and have trained their systems to engage in recovery more quickly**
- **Clients with lower levels of overall fitness and/or complicating health issues recover less quickly as their body can't devote as many resources to the recovery while still fighting other health issues, and their systems aren't as well trained to recover**

The Age of the Client/Patient

- **Related to the last slide, younger clients generally have better overall health profiles as well as better overall fitness levels**
- **Younger clients tend to recover more quickly**
- **Older clients tend to recover more slowly**
- **Obviously there are exceptions to this. For instance, an older client who doesn't have health complications and is very fit would likely recover faster than a younger client with a serious health issue and isn't able to keep an average fitness level**

Commitment to Working on Recovery

- **Recovery takes work, whether it's PT exercises, stretching, using ice, heat, and/or compression as directed, and more**
- **The entire point of recovery work is to increase the amount of blood flow and exchange through the affected area to increase healing times**
- **Blood is the means by which we transport new resources to the area (collagen, proteins, etc) and take away damaged materials…without adequate blood flow healing take a lot longer**
- **Clients who either skimp on their homework or simply can't make enough time for it due to life commitments will take a lot more time to recover**
- **Clients who commit to their homework and make time for daily exercises and other recovery tools will take a lot less time to recover**

Limitations to Mobility, Especially Walking

- **Basic full body activities such as walking help keep blood flow up through the entire body and therefore speed up recovery**
- **A surgery that limits walking will make recovery take a lot more time as it will limit the overall number of hours that blood flow is increased in the body to whatever active exercises the client can do in PT**
- **A surgery that does not limit walking will take less time to recover from overall, especially if the client/patient walks a healthy amount in their normal daily life**
- **Remember that the heart is not actually strong enough to pump the blood all the way through the body….it needs muscular compression of the veins and the one-way valves in the veins to assure that it gets returned, especially from the feet**

Surgeries that Introduce Structural Limitations

- **Sometimes compromises need to be made when a surgeon is trying to rebuild damaged parts of the body, especially if the damage is caused by an impact accident that severely damages structures**

- **For instance, I had a client years ago that had a major car accident decades earlier that shattered their pelvis and all 5 lumbar vertebrae!**

- **In order to save the function of the legs and prevent the client from being paralyzed, the client needed to be completely isolated from movement and rebuilt in stages:**
  - **Using pins, the pelvis was rebuilt first**
  - **Next, Harrington rods were surgically attached to the lumbar spine and the vertebra were fused to the rods and individually rebuilt with pins**
  - **This all required 16 weeks to fully fuse and heal before the client was allow to start PT and slowly regain function**
  - **Normally PT might start much earlier in the 3-8 week range with very light activity, but the danger of something breaking down early and potentially severing the spinal cord was too risky so recovery had to start much later and after a long period of isolation**

- **The client was left with what essentially amounts to 1 giant fused lumbar “vertebra” that has zero ROM which limits the ability to fully recover and also massively slows down the process - which despite being a burden requiring constant maintenance is still much better than losing total use of his legs**

Basic Recovery Timelines (Quick, Medium, Slow)

- **If the above factors are starting to make your head spin in terms of predicting recovery timeline for a client, I get it :) It's a lot and still can only produce an estimated timeline.**

  So let's simplify a bit and talk about some basic timelines:

  - **Quick Recovery can range from a few hours to about 6 weeks**
  - **Medium Recovery can range from about 7 weeks to 16 weeks**
  - **Slow Recovery can range from about 4 months to several years**

Quick Recovery Timeline

- **A less invasive surgery usually falls into the quick recovery category. This generally involves the following:**
  - **An immediate return to normal daily activities with little to no limitations**
  - **0-8 PT sessions with the goal of quickly restoring normal movement patterns and quickly helping the client stretch and mobilize any limitations from scar tissue**
  - **A return to full exercise levels within 1-6 weeks (returning to *full* ability in terms of speed, strength, balance, etc may take an additional 4-6 weeks)**

Medium Recovery Timeline

- **An average invasive surgery usually falls into the medium recovery category. This generally involves the following:**
  - **Limitations on normal daily activities for several days to several weeks to allow structures to heal enough to bear weight normally, often with bracing**
  - **8-24 PT sessions with the goals of first increasing blood flow to the affected areas to speed healing times, then slowly restoring normal movement patterns and helping the client stretch and mobilize any limitations from scar tissue**
  - **A return to full exercise levels within 6-16 weeks (returning to *full* ability in terms of speed, strength, balance, etc may take an additional 6-12 weeks)**

Slow Recovery Timeline

- **A highly invasive surgery usually falls into the slow recovery category. This generally involves the following:**
  - **Total limitation of movement of the affected areas for several weeks to several months to allow structures to heal enough to bear weight normally**
  - **24-60 PT sessions with the goals of first increasing blood flow to the affected areas to speed healing times, then slowly restoring normal movement patterns and helping the client stretch and mobilize any limitations from scar tissue**
  - **A return to full exercise levels within 16-24 weeks (returning to *full* ability in terms of speed, strength, balance, etc may take an additional 3-18 months, and may require the client to accept long term limitations going forward)**

Examples of Quick Recovery Surgeries

- **While it's outside of the scope of a 3-hour webinar to go into each and every surgery out there, we can start with some examples that are generally quicker recoveries:**
    - **Any simple cosmetic procedure that only involves a small area of the skin**
    - **Wisdom teeth removal**
    - **Appendectomies**
    - **Basic carpal tunnel syndrome release**
    - **Most laparoscopic (and other "scopic") surgeries if they don't leave a lot of scar tissue behind inside the body**

Examples of Medium Recovery Surgeries

- **Some examples that are generally medium recoveries:**
    - **Laminectomies**
    - **Simpler spinal fusions**
    - **C-Section**
    - **Gallbladder Removal**
    - **Hernia repair**
    - **Coronary artery bypass**
    - **Hip resurfacing**

Examples of Slow Recovery Surgeries

- **Some examples that are generally slow recoveries:**
  - **Total knee replacements**
  - **Total hip replacements**
  - **Total shoulder replacements**
  - **Bunion surgery**
  - **Brain surgery (largely due to needing to refrain from any intense activity until the area fully heals to prevent possible brain bleed or strokes)**
  - **Open heart surgery**
  - **Amputations**
  - **Whipple Procedure**

You Don’t Have to Know it All (And truly can’t….)

- **In the course of my career, I’ve had *lots* of clients come in and tell me about surgeries they’ve had that I had never heard of before.**
- **It’s okay to do a bit of research on the surgery right there with them in intake just to familiarize yourself with the basics.**
- **Ask lots of questions, both to determine any contraindications, but also to gain as much information about the procedure as you can so that you’ll be better informed for other clients who might come in after that have had the same or similar procedures done.**
- **I also recommend spending time outside of the session itself doing more research so that you can get comfortable working with the client and more confident about your approach(es) to helping them.**
- **You only have to spend this extra time learning about a new procedure once and it’s worth it as you may wind up becoming the local “magician” massage therapist for this procedure and start getting referrals from local surgeons.**

You Don’t Have to Know it All (And truly can’t….)

- **Here in NYC, this attitude has resulted in my name (and practice) being given out to the patients of several major shoulder, knee, and hip replacement specialists and I generally get sent their “tough” cases**

- **Part of this is due to getting results, but also that I’m knowledgeable enough about the procedures and PT schedules to know how to integrate what I do with what the rest of the patient’s team is doing so that I have a tangible and noticeable impact on the recovery times in a cost effective way (despite not being able to take insurance….)**

- **Being able to communicate exactly how many (or few) sessions with me can improve recovery times and generally hit the mark on those results allows clients to feel that paying out of pocket for my services is a worthwhile investment and may actually save them $ in the long run**

Massage for Post Surgical Recovery

- How can medical massage help improve post surgical recovery?

First, Let's Discuss What Massage *Can't* Do

- **Strengthen and stabilize affected tissues (this is the main job of PT)**
- **Directly work on some deeper internal scar tissue (also something a PT might be able to work on with techniques such as ultrasound, cold laser, etc)**
- **Directly heal broken bones, internal organs, sutures, etc (generally the job of the body itself with help from movement limitations, and braces)**

- **After surgery, there are generally going to be affected tissues that are weaker, destabilized, and still vulnerable to re-injury**

- **Massage near these areas while they are still healing is mostly counterproductive in the early stages (0-2 weeks) and can destabilize tissues in a dangerous way**

- **In general, massage should never be performed post surgery directly to the affected area until the client/patient has been cleared to engage in PT and/or regular activities by their surgeon**

- **And while more generalized light stress reduction massage may not cause harm at this stage, it may not provide much relief either and rest is likely just as helpful**

- **It’s more valuable to tell a client they should wait before getting massage than to work on a client during this potentially dangerous stage - and they will respect you more for it**

- **Being clear about when massage can really help and when it’s not really worth it helps build trust with clients**

- **Once the client/patient has been cleared for PT and light activities, massage is generally safe - however, avoid techniques that push end range of motion and start with light mobilizations of the area at first**

- **You can gradually increase the intensity of deep tissue work in the area and ROM techniques over the course of weeks**

- **In general, most tissues from surgery will be fully “healed” by 12-16 weeks and can be treated “normally” (with the caveat that you should never ‘jump’ in intensity)**

Next, Let's Discuss What Massage *Can* Do (Best)

- **Open scar tissues from surrounding tissues to allow gliding of tissues across each other**
- **Directly work on external scar tissues to make them more elastic**
- **Work on undoing compensation patterns in the rest of the musculature which 'forces' the cerebellum to reintegrate the affected tissues and start using them more normally again**
- **Find and work on older injuries that may have contributed to the need for the surgery**
- **In addition to the more direct effects that massage can have on the impacted tissues and areas, the overall tonifying aspects including helping the client re-engage their parasympathetic nervous systems are valuable and not emphasized by other treatments**

Open Scar Tissues from Surrounding Tissues

- **Techniques such as “pin and stretch,” myofascial release, and ART can be used once the affected tissues have fully healed from the surgery to hold down the affected tissues while the therapist passively moves the surrounding tissues, joints, and limbs**

- **This can be increased to have the client actively moving the surrounding tissues, joints, and limbs themselves through functional ranges of motion to increase the results**

- **In addition, active movements by the client help to “reprogram” their cerebellum to stop avoiding moving through the affected tissues**

Directly Work on Scar Tissues

- **Scar tissue is made out of the same materials as healthy fascia, a mix of mostly collagen fibers and water**
- **Healthy fascia organizes the collagen fibers into a “weave” like fabric that allow elasticity in various directions depending on how they are organized**
- **In scar tissue, the collagen fibers have no organization and are jumbled together to “plug” an area quickly to prevent internal bleeding**
- **Repeated work directly on the scar tissue, especially when combined with the techniques from the previous slide can slowly but surely reorganize the fibers to more resemble a healthy fascia matrix that has better elasticity**

Directly Work on Scar Tissues (cont)

- **We tend to think of this process as “injured” and “healed,” however, what actually happens during recovery is that injured tissues are rebuilding with less useful scar tissues to provide stability, then movement tears the tissues back apart again**

- **Throughout recovery the tissues are constantly being torn apart and rebuilt fiber by fiber, which sounds bad, but is actually what’s needed to prevent the scar tissue from forming an “immobile” area in the body**

- **PT helps speed this process up so that the tissues stabilize and regain strength**

- **Massage helps speed this process up by challenging the tissues to stretch open and reorganize more quickly in a controlled way**

Undoing Compensation Patterns

- **Great PTs will not just look at getting strength back to the area of the surgery, but also give exercises to help re-integrate the area with the rest of the musculature**

- **Unfortunately, many PTs don't think this broadly, or are limited by insurance in what they can bill for and can get stuck focusing only on the area of the surgery**

- **Even when a client is working with a great PT and getting broader integrative exercises, PT is a "closing tissue" practice…older injuries that are causing compensation patterns often simply need additional "opening tissue" techniques which is where we shine as MTs**

- **Giving the body relief and increased ROM in other seemingly unrelated areas increases the resources the body can use to speed up recovery of the surgery**

Undoing Compensation Patterns (cont)

- **And while it's best to be clear with clients/patients that many injuries and surgeries cause changes that won't allow the person to get 100% of their function back, there is a range of possible limitations that will arise…the more work they do on recovery the less limitation they will have going forward**

- **A lot of clients complain that PT alone never quite gets them back to feeling as if the injured area isn't continuing to have constant low level symptoms and that a few well placed massage therapy session within the recovery process make all the difference**

- **Having a balance of opening and closing modalities that both incorporate long chain movement challenges allows the injured area to heal and re-integrate more quickly, better, and with less likelihood of future re-injury**

Find and work on older injuries

- **One of the main problems with some surgical approaches to pain relief is that they work on symptoms, and sometimes miss root causes**
- **For example, an older sprained ankle that has lost it's ROM can put shearing pressure on other joints like the knee resulting in long term wear and tear that ultimately requires a knee surgery**
- **The knee surgery can fix the knee pain but doesn't address the underlying cause and patterning which may still cause injury that joint and to other joints in the future**
- **Since it's common for both the surgeon and the PT to focus mainly on the area of symptoms, we can broaden our approach and go after related issues with surrounding joints which will make their work far more effective**

Find and work on older injuries (cont)

- **Here is a not at all complete list of some examples of common older injuries that may lead to a future surgery on a different area of the body**
    - **Ankle injuries can contribute to bunions, breaking down of knee cartilage and ligaments, lumbar disc herniations**
    - **C-sections or diastasis recti can lead to lumbar disc herniations, upper crossed syndrome leading to shoulder surgery, structural breakdown in the hip sockets**
    - **Rotator cuff tear may lead to carpal tunnel syndrome, trigger finger, and golfers/tennis elbow, as well as possible cervical herniations**
    - **Gallbladder or appendix removals can cause scar tissue that tightens one side more than the other leading to spinal herniations and all sorts of other long term wear and tear injuries to surrounding joints (we should pay special attention to surgeries that require removal of body parts which leave a space in the body…a secondary function of *all* body parts is to provide structural support and that is now missing)**
    - **What are some other examples? Share in the chat**

Overall Tonifying Benefits of Massage

- **Let's face it, getting injured and requiring surgery is *stressful* - and massage is pretty great at helping lower stress**
- **The body needs to be able to enter parasympathetic mode to heal, but it's been traumatized and may be stuck in fight or flight mode**
- **Many clients are basically stuck in sympathetic fight or flight mode most of the time, which often contributed to their need for surgery in the first place**
- **We can help restore a more healthy ability for the client to relax, which will speed up recovery times**
- **This is especially helpful in the initial period post surgery where it's no longer dangerous to work near the affected area but it's still unwise to do too much work too deeply**
- **It's also a benefit that we are uniquely well suited to provide that most clients are *not* getting from traditional medicine**
- **Often clients need an encouraging cheerleading who can help them evaluate that they are actually doing quite well in their recovery when they get "down" that they aren't back to full activities yet**

Massage for Post Surgical Recovery

- Making a Treatment Plan for Clients & Treatment Demonstration

How many massage sessions in what frequency?

- **While we can never predict this with 100% accuracy, it's very helpful to give clients a clear outline of how your work will integrate with their PT**
- **Keep in mind that their PT is usually covered by insurance and our work often is not, so I try to offer an approach that is most cost effective**
- **Most post surgical PT prescriptions will have the client doing PT 2-3x per week for 4-12 weeks, tapering off as the client improves**
- **These sessions can feel like glacial progress to the client but are still vital to helping rebuild strength and stability to the area post surgery**
- **These PT timelines will often "flatline" for the client at some point in the process which can get them kicked off of insurance coverage for the PT despite the fact that they aren't fully recovered and still experience symptoms**

How many massage sessions in what frequency? (cont)

- **A well timed massage about every 2-3 weeks can jump the client up to a new level of ability each session in a way that is worth paying out of pocket for, and will usually decrease the overall number of PT sessions such that the cost of the massage is less than the cost of the additional PT copays the client would need to pay to get the same results**

- **Even if this doesn't always save the client $, the noticeably faster recovery is usually well worth it for most clients**

- **In general, my clients report that their PTs notice immediate improvements in their sessions after a massage session with me, and that this improvement "sticks" thus making the PT itself much more effective as the client is now able to do more challenging exercises with better results**

How many massage sessions in what frequency? (cont)

- **These every 2-3 week massage sessions can also taper off as the client improves along with their PT tapering off**
- **Some clients even like to switch to more frequent massage sessions as their PT tapers off and they are strong enough to handle really deep work and recover most of their ROM**
- **Eventually both the PT and massage will “flatline” and the the injured area will simple need time to fully integrate back into daily life**
- **At this point the client will either stop massage for a while, or enter a maintenance massage cycle with sessions every 2-12 weeks depending on their budget and schedule**

How many massage sessions in what frequency? (cont)

- **For a quick recovery, 1-2 massage sessions along the way might be all that's needed to boost their recovery and get back to 100% alongside PT sessions**

- **For a medium recovery, 3-6 massage sessions along the way might be sufficient to get back to 90-100%**

- **For a slow recovery, 7-12 massage sessions along the way might be sufficient to get back to 70-80%**

Let’s bring in our guest client!

- **Introduce our client**
- **Have them tell their story briefly with intake questions from DW and also any questions from the chat**
- **Brief overview of the surgery performed**
- **Discussion of impact on client and reasonable recovery expectations**

Techniques we'll be demonstrating in sequence

- **The basic approach of the session will be:**
  - **Work distally on related joints**
  - **Work fascially from distal to towards the surgery**
  - **Work directly on the surgery area**
  - **Pin and stretch the area while the client moves distal parts away from it**
  - **Finish with tonifying work to help the client relax and engage parasympathetic systems**

Techniques we'll be demonstrating in sequence

- **Identify long chain fascial lines that run through the area and working on surrounding joints along these lines to improve ROM**
- **Perform myofascial release strokes towards the injured area to provide slack on the tissues**
- **Perform direct friction work on the external and reachable internal scar tissue**
- **Use pin and stretch techniques to release scar tissue from nearby tissue and allow better gliding of tissues across each other**
- **Finish the session with more tonifying work to help tie everything together and restore the client's ability to relax and better heal**

Massage for Post Surgical Recovery

- Communicating a Treatment Plan & Giving Homework Alongside PT

Client Homework Practices

- **Since the client is likely already doing a *lot* of daily exercises in PT, I like to offer different forms of homework that work more broadly to integrate the injured area. These might include:**
    - **Relaxation tools such as lying down with feet up on a chair for 5-8 mins to shorten psoas**
    - **Postural awareness exercises such as noticing foot position while standing and walking**
    - **Gait retraining exercises to help the client better integrate the injured area into normal movements like walking**
    - **Stretching techniques such as AI stretching or PNF stretching**
    - **Sleep hygiene exercises to make sure they are resting enough to recovery more quickly**
    - **Integration awareness exercises such as noticing how a different joint is moving less efficiently to avoid moving through the injured area and having the client try to focus on moving efficiently through that so force the body to use the injured area “properly”**

Massage for Post Surgical Recovery

- Q & A
- How to download slides, get your certificates, when video will be available