Therapy and Myositis
Part 2

Weakness, Balance, Walking, Fatigue, Fall Risk and what you can do to decrease risk while continuing to maintain a high quality of life.
Weakness

• Many studies are now showing that exercise is beneficial and therapeutic benefits for people with Myositis. Most likely 15-30 minutes daily is adequate.

• Don’t forget though that therapeutic response to an exercise program is highly individualized. Use “Therapy and Myositis Part 1” as a guideline and work together with your PT or OT to figure out what the best program is for you.

• Best way to manage weakness if adequate exercise and energy conservation
Balance

• When muscles that control your ankle and foot movement, your knee movement become weak, it will have a significant effect on your balance.
• Combine that with sensory impairment, impaired patellar (knee) and Achilles (ankle) reflex impairment for some people (especially those with IBM) and the balance problem is even more significant. In other words, your ability to compensate is affected.
Balance

• What do you do?
• Well, as always, we CAN compensate.
• Depending on disease involvement we may be able to compensate with no tools, BUT some people with more involvement MAY NEED TOOLS to make them safer, more functional, more able and with less risk for injury as they tackle everyday life.
Fatigue

• Why fatigue?
  – Disease exacerbation, muscle inflammation, pain, organ involvement and other environmental triggers can and do contribute to fatigue. These are the easier things to pinpoint when talking about fatigue.
  – BUT…..Can other things contribute?

• Weakness?

• Balance impairment?

• Your daily responsibilities may involve TOO MUCH caloric (energy) expenditure?
  – Work responsibilities? Home responsibilities? How accessible is your home and your community? Your vehicle?
Fatigue

• Are you moving in the MOST EFFICIENT manner

• Does looking into more efficient ways of moving make you feel like “You are giving into the disease?” If so, do you feel that this may contribute to fatigue?

• Are you ready to embrace the concept of “Energy Conservation?”
Falls

• There is no such thing as NO fall risk
• Weakness, balance impairment, walking impairment, slower walking speed, fatigue, pain and some sensory changes can all contribute to increasing your fall risk.
Falls

• What can you do to decrease your fall risk?
  – Exercise properly and regularly to address all these issues as discussed in Part 1.
  – Learn what to do in case of fall
    • Practice fall recovery in different parts of your house
  – Have a plan in place in case of fall
    • Emergency alert system?
    • Creating and prioritizing an emergency call list
    • 9-1-1?
  – Use aids that will make you feel safer while maximizing your functional potential
    • May use different aids at home versus the community
Aids That Help Decrease Fall Risk While Maximizing Functional Mobility
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Aids That Help Decrease Fall Risk or Can Help When a Fall Occurs
Aids That Help Decrease Fall Risk While Maximizing Functional Mobility
Walking Aids

• In addition to walking poles, canes, walkers (standard; 2-wheel; 4 wheel; knee; platform; safety) bracing ankles, knees or both may lead to a significant improvement in your walking ability, efficiency, while greatly minimizing fall risk.

• Lower Extremity Bracing Defined
  – AFO = Ankle Foot Orthoses
  – KAFO = Knee Ankle Foot Orthoses
PHAT Dynamic Response AFO

Dynamic Response/Energy Storing AFO

PHATBRACES.COM
PHAT AFO

• Dynamic Response is defined as a structure that has a resistance to flexion which increases, as the flexion increases.

• In other words, it ADDS a little spring to your step, but also stabilizes your ankle to help with any weakness that may be there.
  – More stability means better balance, more efficiency with walking and more confidence
PHAT (not FAT) Discussion

- Dynamic gait response is nice. It comes with different levels of assistance.
- Posterior placed bar makes putting shoes on a little harder.
- More arch/midtarsal and subtalar joint support you also get more brace. That means larger shoes, and possibly shoes you won’t enjoy wearing (appearance).
AFOs, continued

• Additional AFOs that provide stability with some of the dynamic response (but not as much) from the PHAT brace, but can be less bulky, can have an appearance that you may like better and may give you more options in terms of shoe wear.
Dynamic AFO

- Bar in inside may rub on ankle bone
Walk-On AFO

• Bar on inside may rub ankle bone
Initial and Terminal Stance Assist AFO

- From Allard, USA
Matrix/Toe-off versus Dynamic/Walk-On

• Foot bed—Narrow feet/narrow shoes may work best with Toe-Off line
• Both are extremely lightweight
• Medial versus Lateral Ankle stabilization
  – Lateral has less tendency to rub on ankle bones.
• Which would make putting shoes on easier?
  – Sliding into it or having to go over the brace and then into your shoe?
Ypsilon, Toe-Off, Blue Rocker

- Identical foot beds
- Helps with initial heel contact and earlier toe off at terminal stance
- I like it for person with weak dorsiflexors and plantarflexors with concurrent quadriceps weakness.
- Person may not need KAFO due to decrease demand on quadriceps with this brace.
- Ypsilon = weakest and Blue Rocker = strongest
Toe-Off AFO from Allard

- **ToeOFF®** is a new generation AFO, covered by several patents. The design absorbs energy at heel strike and returns it at toe-off, restoring a more normal and dynamic gait. The benefits are the ability to walk further... with greater comfort... and with less impairment of gait pattern, if not normality, **ToeOFF®** is used in conventional shoes and is easy to put on and take off - just two straps attach it to the leg.
Toe-Off AFO Family Continues

• **ToeOFF®** is not only effective, it is also easy to use. It is very light-weight, easy to put on and take off, and easy to adjust. It is also comfortable to wear. The orthosis fits into the shoe like an insole and accommodates most shoes without having to increase shoe size. In my opinion, this may be the only orthotic that allows complete flexibility in shoe wear options.
Sweedoe SMART Brace
Sweedo Drop Foot Brace/AFO
Sweedo Step-Smart AFO

- Less brace-good—people like minimal design
- ¾ length –may or may not be good
- More medial arch support—may or may not be good
- Can be calibrated to dynamically assist gait during heel strike (shock absorption) and slow down the speed by which your foot makes full contact with the floor. Basically, nice if you only have dorsiflexion weakness.
- May limit your shoe options and may place more demands on your quadriceps.
KAFOs

• When muscles that work the ankle and knee joints are weak you may need more a brace that helps both joints compensate for their weakness.
• Still choose lightweight
• Higher tech KAFOs allow the prosthetist-orthotist (CPO) to “calibrate” the brace so it helps the ankle and knee be more stable but also function better at critical stages of the walking cycle.
KAFO

• Freewalk KAFO from Ottobock
FreeWalk KAFO

- The Free Walk was developed for patients who, due to a **partial paralysis or a complete failure of the knee extensors**, are unable to stabilize their knee without compensatory measures. Our innovative design creates a more natural gait cycle by **locking during stance phase and unlocking during swing phase**. **The automatic lock is initiated by knee extension**, and is only released to swing freely when a knee extension moment and dorsiflexion occur simultaneously during terminal stance. The result is a more secure, efficient gait that also reduces the incidence of typical gait compensations.

- This allows your customer to flex the leg and let it swing through freely. Non-physiological movements, which are associated with hyperextension of the joint through the compensatory use of the gluteus muscles in the use of conventional orthoses, are effectively reduced. Subsequent damages such as ligament **instability** and arthrosis complaints are therefore minimized. The Free Walk orthosis also relieves the back, hips, and knee joint. It provides your customer with security, stability, greater mobility as well as a largely normal gait.
Carbon Based KAFO
E-Mag Active KAFO
E-MAG Active KAFO

• Indications
  • The E-MAG Active was developed for patients who, due to partial paralysis or a complete failure of the knee extensors, are unable to stabilize their knee joint without compensating measures. Safe use of the knee joint system requires certain residual muscle functions or hyperextension of the knee joint. This guarantees consistent activation of the swing-through and stance phases. While the knee joint system is controlled unilaterally, it always has to be equipped with a medial support.
  • The E-MAG Active is suitable for a body weight of up to 85 kg. Your customers do not have to have existing ankle functionality. Use of the E-MAG Active is also possible in cases of leg length reductions or in combination with ortho-prostheses.
Day One
My resolution to cut down on caffeine is going well!
Therapy and Myositis
Part 2

Optimizing Activities of Daily (ADLs)

KeyId Words:
SAFE
FUNCTIONAL
INDEPENDENT
Your “ADL Assessment”

- Your Occupational Therapist should ideally go over your whole day to determine what activities are challenging.
- They should help you “problem-solve” to find new ways of completing the task.
- They should help you “problem-solve” to find adapted equipment (AE) or durable medical equipment (DME) to assist you.
Daily Activity:
Wake Up – Get Out of Bed

• Challenges:
  Turning in bed.
  Sitting up in bed.
  Getting out of bed.
Daily Activity: Going to the Bathroom

- Challenges:
  - Walking to the bathroom safely.
  - Getting on and off the toilet.
  - Toilet hygiene.
  - RUGS!
Daily Activity: Taking a Shower

• Challenges:
  Getting in and out of the shower.
  Taking a shower.
  Drying off.
Daily Activity: Taking a Bath

- Challenges:
  Getting in and out of the tub.
  "Soaking".
Most Bathrooms
Daily Activity: Getting Dressed

- Challenges: LB Dressing pants, socks, shoes
  UB Dressing bra, nylons
  Ted Hose
Daily Activity
Breakfast (Meals)

Home Modifications

- Home modifications will be addressed in tomorrow’s lecture.
Daily Activity: Personal Hygiene

• Challenges:
  Brushing teeth.
  Make-up.
  Shaving.
  Jewelry.
Daily Activity: Working

• Challenges:
  In and out of house.
  In and out of car.
  Ergonomic evaluation of work station.
    Computer
    Handwriting
  ADA compliance.
Daily Activity:  
Shopping

• Challenges:  
Parking lot to store.  
In the store.  
Reaching, lifting, and carrying.
Daily Activity: Leisure

• Challenges:
  Golf grip
  Knitting needles
  Wii remote
  Holding a book to read
  Playing cards
  Socializing
  energy conservation
  Watching television
  Other???
Daily Activity: Bedtime

- Challenges: Getting into bed. Getting up at night for toileting.
Other Ideas

Medical Chip Bracelet
Lifeline Alert System
Lockbox for door.
Resources

• Does insurance cover AE/DME?
• AE/DME Companies:
  – Local showrooms
  – Online
• Check with family and friends.
• Community loan closets.
• Goodwill or other thrift stores.
• Yard sales.

BE CAREFUL THAT THE EQUIPMENT IS IN GOOD CONDITION BEFORE USE.
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Questions?

Thank you!
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