

The Sports Application of **SOFi**

Taking Acoustic Myography to a Higher Power™

Ice Hockey – Injury / Rehab

As of July 2025



AMT is an Official Supplier



Common Hockey Injury Types Requiring Rehabilitation

- Concussion
- Ankle injuries
- Groin strain
- Knee injuries
- Hip injuries
- AC joint separation (acromioclavicular joint)
- Shoulder injuries
- Fractures
- MCL injury (medial colateral ligament)

Types of Injury *SOFi M²*TM/AMG Can Help Diagnose

- Concussion
- Ankle injuries
- Groin strain
- Knee injuries
- Hip injuries
- Shoulder Injuries

*The *SOFi M²*TM System*



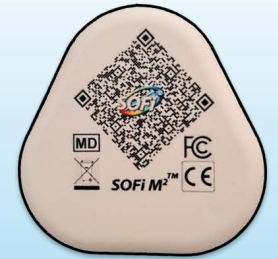
Android or iPhone
iPad or PC Tablet



*SOFi M²*TM Wireless Unit

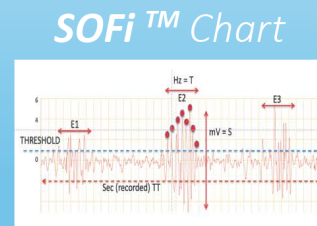
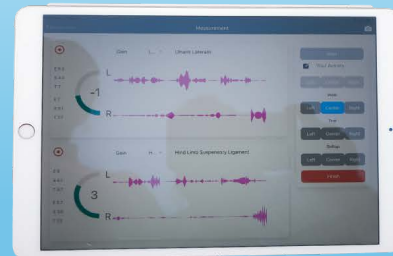


*SOFi*TM Charger



*SOFi M²*TM
FDA ISO QR Code

***SOFi*TM by AMT**



*SOFi*TM Nanuk 915 case

Taking Acoustic Myography to a Higher PowerTM

Baseline Assessment

- To aid in diagnostic assessment post-injury, it is highly recommended to obtain baseline assessments for each athlete.
- Like other medical modalities (imaging, lab testing, etc.) the ability to compare the post-injury results to a baseline study greatly increases diagnostic acumen with subtle findings
- However, even without referring to baseline studies in Musculoskeletal injury the ability to compare laterality (injured vs. non-injured) still makes post-injury musculoskeletal testing highly diagnostic

INJURY TYPE:

- Concussion



To be performed In Situation/On the Ice

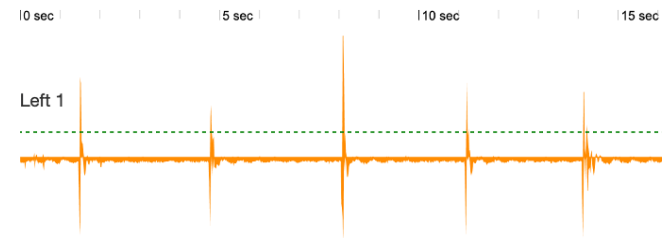
- ❑ Without moving the subject, gently place the sensors on the lateral canthus and m.Flexor carpi radialis – use the hydrogel to hold the sensor in place. Connect up to the **SOFi M²™** units and start the AMG protocol.
- ❑ Compare the results with the baseline values for this subject to assess the degree of concussion.

AMG Sensor position	AMG protocol
Lateral Canthus	Blinking response – auditory cortex; “blinking center”, visual recognition, blinking rate, weak/strong blinks
Forearm – flexor carpi radialis	Ask subject to clench their fist 2-3 times as hard as they can



Blinking response

SOFI M² Analysis - Eye



E	S	T	Threshold	Max T	Max S
9.8	7.5	9.2	0.2	160	0.99



Attach a small ***SOFI M²*** sensor to the corner of the eye (see illustration) without moving the subject, after which the following tests should be executed:

- Speak to the subject — Auditory Cortex (temporal lobe)
- Subject should blink (with blue spot only) — "Blinking Center" – globus pallidus of the lenticular nucleus
- (smart phone screen up close to the subject) — Visual recognition (colour) – Ventral Occipital lobe + optic nerve
- Observe the number of blinks — Orbitofrontal Cortex – blinking rate
- Faint / forceful blinks 3 times — Cerebellum Cortex – forceful blinks with damage

Cerebrum – interprets sounds and sights

Cerebellum – coordination – fine motor skills (blinking)

INJURY TYPE:

- Ankle injuries



To be performed off the ice

- ❑ Once the subject is off the ice, gently place the sensors on the affected muscle/s e.g. m.Peroneus longus; m.gastrocnemius; m. soleus – use the hydrogel to hold the sensor in place. Connect up to the **SOFi M²**™ units and start the AMG protocol.
- ❑ Compare the results with the baseline values for this subject to assess the degree of muscle strain.

AMG Sensor position	AMG protocol
Lower leg muscle – m.Peroneus longus	Ask subject to walk a few paces on a flat surface, ideally without shoes/skates
Lower leg muscle – m.Gastrocne mius	Ask subject to walk a few paces on a flat surface, ideally without shoes/skates

INJURY TYPE:

- Groin strain



- ❑ Once the subject is off the ice, gently place the sensors on the affected muscle/s - e.g. m.Adductors, Iliopsoas – use the hydrogel to hold the sensor in place. Connect up to the **SOFi M²**TM units and start the AMG protocol.
- ❑ Compare the results with the baseline values for this subject to assess the degree of muscle strain.

To be performed off the ice

AMG Sensor position	AMG protocol
Upper leg muscle – m.Adductor longus	Ask subject to walk a few paces on a flat surface, ideally without shoes/skates
Upper leg muscle – m.Adductor brevis, magnus, pactineus	Ask subject to walk a few paces on a flat surface, ideally without shoes/skates
Upper leg muscle – m.Iliopsoas	Ask subject to walk a few paces on a flat surface, ideally without shoes/skates

INJURY TYPE:

- Knee injury



- ❑ Once the subject is off the ice, gently place the sensors on the affected muscle/s e.g. m.Quadriceps, m.Biceps femoris, m.Semitendinosus – use the hydrogel to hold the sensor in place. Connect up to the **SOFi M²**TM units and start the AMG protocol.
- ❑ Compare the results with the baseline values for this subject to assess the degree of muscle strain.

To be performed off the ice

AMG Sensor position	AMG protocol
Upper leg muscle – m.Quadricep s	Ask subject to walk a few paces on a flat surface, ideally without shoes/skates
Upper leg muscle – m.Hamstring s (m.Biceps femoris, m.Semitendi nosus, m.Semimem branosus	Ask subject to walk a few paces on a flat surface, ideally without shoes/skates

INJURY TYPE:

- Hip injury



To be performed off the ice

AMG Sensor position	AMG protocol
Hip muscles – m.Gluteal – maximus, medius	Ask subject to walk a few paces on a flat surface, ideally without shoes/skates
Hip muscles – m.Iliacus, psoas major, rectus femoris	Ask subject to walk a few paces on a flat surface, ideally without shoes/skates
Hip muscles – m.Adductor	Ask subject to walk a few paces on a flat surface, ideally without shoes/skates

- Once the subject is off the ice, gently place the sensors on the affected muscle/s e.g. m.Gluteus, Iliacus etc., Adductors – use the hydrogel to hold the sensor in place. Connect up to the **SOFi M²**™ units and start the AMG protocol.
- Compare the results with the baseline values for this subject to assess the degree of muscle strain.

INJURY TYPES:

- Shoulder injury



- ❑ For the assessment of mild to severe strain and sprain injuries – perform a baseline for all of the subjects at risk, prior to any training session or competition.
- ❑ Once the subject is off the ice, gently place the sensors on the affected muscle/s e.g. m.Supraspinatus, m.Deltoideus, m.Trapezius – use the hydrogel to hold the sensor in place. Connect up to the **SOFi M²**™ units and start the AMG protocol.
- ❑ Compare the results with the baseline values for this subject to assess the degree of muscle strain.

To be performed off the ice

AMG Sensor position	AMG protocol
Shoulder muscle - m.Supraspin atus, m.Infraspinat us, m.Teres minor, m.Subscapul aris	Ask subject to lift their arm from rest up to shoulder height, then above the head – both infront of the body and to the side
Shoulder muscle – m.Deltoideus	Ask subject to lift their arm from rest up to shoulder height, then above the head – both infront of the body and to the side
Shoulder muscle – m.Trapezius	Ask subject to lift their arm from rest up to shoulder height, then above the head – both infront of the body and to the side

Types of Injury ***SOFi M²***TM/AMG does not Help Diagnose

- Acromioclavicular joint separation (AC Joint Injury)
- Fractures
- Medial Collateral Ligament injury (MCL Injury)

INJURY TYPE:

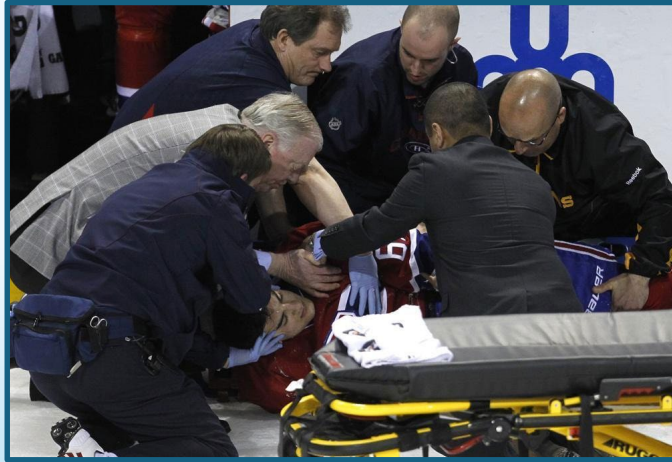
- AC joint separation



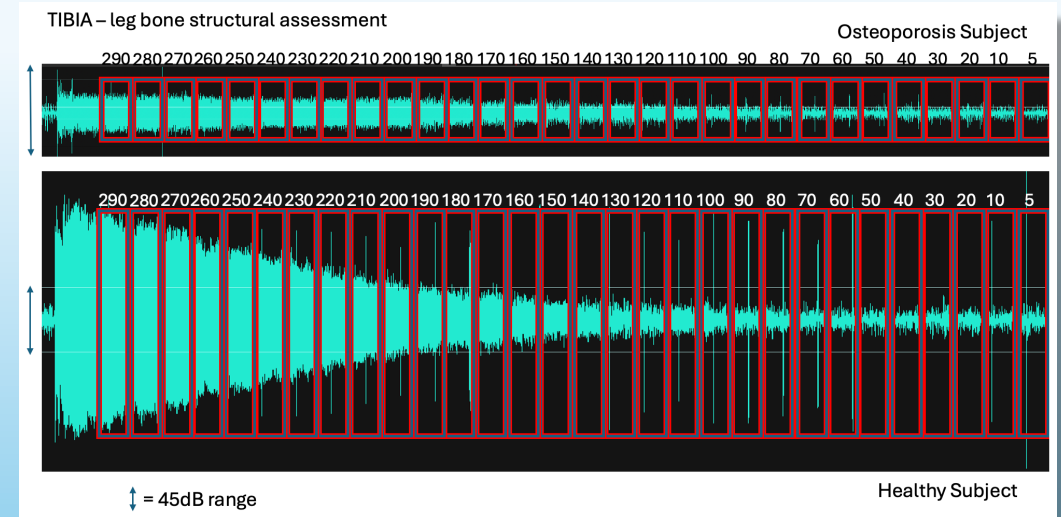
- ❑ The **SOFi M²**™ system is currently not able to measure an AC joint separation directly. As previously discussed, the sensors have been used in human subjects to assess changes in muscle activity around a shoulder joint in subjects with rotator cuff injuries, though – m.Supraspinatus, m.Infraspinatus, m.Teres minor, m.Subscapularis

INJURY TYPE:

- Fracture



- ❑ The ***SOFi M²***™ system is currently being studied to diagnose injury within skeletal structures. Testing has already shown that sound waves of changing frequencies placed on the skin above bones can reveal their inherent structure and damage – fractures, demineralization etc. When this diagnostic tool has been fully evaluated and validated, we will update our recommendations about the use of AMG to diagnose fracture



INJURY TYPE:

- MCL injury



- ❑ The ***SOFi M²***™ system is currently not able to measure an MCL injury directly. The sensors have been used in non-human species to assess changes in muscle activity around a knee joint where the ligaments have been ruptured, though.

Treatment Protocols

- ***SOFi M²***[™] is a highly sophisticated diagnostic tool designed to identify, within a high degree of medical certainty, the conditions that are amenable to diagnosis by AMG.
- Treatment for diagnosed conditions should be at the direction of a licensed clinician, or follow a clinician approved protocol.
- Treatment recommendations are outside the scope of this presentation.
- Advanced Myographic Technologies does have licensed clinicians available for consultation on treatment protocols, if requested.

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