Prescribing MASS Funded Orthoses

Presenters

• Rod Goodrick (Orthotist / Prosthetist)  
  (Goodwill Orthopaedics)

• Bianca Nielsen (Orthotist / Prosthetist)  
  (Orthotic Solutions Qld)
Presentation Overview

- AOPA
- What is an Orthosis
- The Function of Orthoses
- The ‘Language’ of Orthoses
  - Classifications, Styles & Descriptors
- MASS Commonly prescribed Orthoses
AOPA

• AOPA (Australian Orthotic Prosthetic Association)
  – Peak body representing O & P’s within Australia.

• Orthotist / Prosthetist (Allied Health Professional)
  – Qualifications (Bachelor P&O, Bachelor of HS / Master of Clinical P&O)
  – Clinical role (patient physical & gait assessment, prescription & design)
    • Skill-set: Anatomy, Physiology, Biomechanics, Pathology
  – Technical role (complete manufacture of P&O devices)

• Why use AOPA Certified Prosthetist/Orthotist?
  – Meets competency standards, PLUS
  – Compulsory Continued Professional Development (CDP)
AOPA

• AOPA’s Representation to...
  – Federal/state Gov., industry stakeholders, employers & public
  – Providing information/guidance regarding
    • Qualifications,
    • Professional standards, and
    • Funding matters.

• AOPA and MASS working together to...
  – Facilitate a ‘common understanding’ of Orthoses between Providers, Prescribers, Applicants and MASS.
  – Ensure a high standard of service delivery and positive patient outcomes
  – Ensure a user-friendly scheme for all involved
What is an Orthosis?

• **Orthosis** (*pl.* Orthoses): An externally applied device used to modify the structural or functional characteristics of the neuromuscular-skeletal systems. Orthoses may be Prefabricated, Customised or Custom Made.

• **Orthotist** (*pron:* Ortho-tist): An allied health professional who is clinically responsible for the assessment, design, manufacture and provision of all types of Orthoses.
The Function of an Orthosis

1. Immobilisation
2. Restriction of Motion (ROM)
3. Enhance Biomechanics
4. Force Re-distribution
The ‘language’ of Orthoses

The Importance of a Common Language: Why bother?

• Uniformed Description of Devices ‘across the board’

• Eliminates the confusion associated with ‘regional’ dialect

• Facilitates a common understanding between Orthotists, Therapists, Referrers, Patients & MASS
The Confusion...

Articulated AFO, Jointed AFO, hinged AFO, Toe Pick-up Brace, Foot Drop Splint, Dorsi flexion Assist AFO, Free ROM AFO...
The ‘language’ of Orthoses
To Overcome This Confusion…

When prescribing or making reference to an Orthosis…

*Use*

1. Classification
2. Style (if applicable)
3. Descriptors (if applicable)
1. The Classification of Orthoses

- A globally recognised Nomenclature (Classification system)

- Orthoses are described by the body part or anatomical joint(s) that they influenced/encompass.

- Orthoses are described by Function: Solid (SAFO) or Articulated (AAFO) or Dynamic (DAFO)

- Acronyms (abbreviations) are used to simplify the nomenclature.

Classification: Ankle Foot Orthosis

Articulated

Acronym: AAFO
Lower Limb Orthoses

- FO
- HKAFO
- AFO
- KO
- KAFO
Spinal Orthoses

LSO

CO

TLSO

CO

CTLSO
2. The Style of Orthoses

- Typical names or Labels
- Generally describes a group of design elements that deem an Orthosis a certain ‘style’
- Typically determined in consultation with Orthotist

**Classification: AFO**

**Style: RWRAP**

**Classification: AFO**

**Style: LEAF SPRING**

**Classification: KAFO**

**Style: STANCE CONTROL**

**Classification: CTO**

**Style: HALO**
Lower Limb Orthoses - AFOs

- SOLID (SAFO)
- DYNAMIC (DAFO)
- ARTICULATED (AAFO)
- Ankle Foot Orthoses (AFO)
3. The Design Descriptors

- Additional terminology to assist when describing
- Refers to additions, components or features
- Typically determined in consultation with Orthotist

Examples:

Sole, Tongue, DR bands, T-strap…
The ‘Language’ of Orthoses

• Material Selection
  – Thermoplastic
  – Metal
  – Laminated (Composite)
  – Other (hybrid)

• Typically determined in conjunction with Orthotist.
The ‘language’ of Orthoses

How to describe an Orthosis

- **Adverb**
  - e.g. Unilateral (UL) L/R or Bilateral (BL)

- **Classification (acronym)**
  - e.g. AFO, TLSO

- **Style (if applicable)**
  - e.g. Solid / Articulated / Dynamic
  - R-Wrap, Leaf Spring

- **Design Descriptors (if applicable)**
  - e.g. Sole, Tongue, Lined
The ‘Language’ of Orthoses

Unilateral (R)
Articulated Ankle Foot Orthosis (AAFO)
Into shoe with 90° Plantar Flexion Stop & heel block.

Bilateral Ankle Foot Orthosis (supra-malleolar Style)
Into shoe
MASS

commonly prescribed

Lower Limb Orthosis “Styles”
Supra-Malleolar AFO

Adverb:            Bilateral (BL)
Classification:   AFO
Style:             Supra Malleolar
Design Descriptors: Into shoe, Diagonal Strap

General Description:
• Medial / Lateral Trimlines extending superiorly to Mals.
• Mid foot dorsal wrap
• Thin thermoplastic (1.8-3mm)
• Trimlines to allow dorsiflexion / plantarflexion
• Into shoe only

Indication:
• Mild to moderate Medical / Lateral (subtalar) instability
R-WRAP AFO

Adverb: Unilateral (R)
Classification: SAFO
Style: R-WRAP
Design Descriptors: Into shoe, Top Diagonal Strap

General Description:
• Thin thermoplastic (1.8-2mm)
• Total Contact Design (circumferential)
• Lightweight
• Transverse plain flexibility

Function:
• Immobilise foot/ankle in high tone or unstable pts

Indication:
• Hypertonicity (spasticity) & involuntary movements
• Highly unstable foot/ankle complex
• Often used for difficult clients when other styles are not tolerated.
BIVALVED AFO

Adverb: Unilateral
Classification: SAFO
Style: Bivalved
Design Descriptors: Tongue, Sole, Lining...

General Description:
• Thermoplastic
• Anterior Tongue (external/internal)
• Anterior force distribution
• Bilvalved External Tongue (CROW Style)

Indication:
• Accommodate fixed deformities
• Indications same as R-WRAP
• CROW (Charcot / Diabetic / Ulcer MX)
GRAFO (Ground Reaction AFO)

Adverb: Unilateral (R)
Classification: SAFO
Style: GRAFO
Design Descriptors:

Description:
• Thermoplastic / Laminated CF Compsite
• Proximal Anterior Shell

Function:
• Manipulation of the GR force to influence sagittal plane kinematics (via forefoot and prox. shell relationship)

Indication:
Knee flexion instability (crouch gait),
Stance phase control (knee flex weakness, hyper ext.)
Dynamic AFO

Adverb: Unilateral (L)
Classification: DAFO
Style: GRAFO
Design Descriptors: Laminated Carbon Fibre

Description:
• Plastic - CF (hybrid) / Laminated

Function:
• Dynamic property offering yielding and energy store/release during gait

Indication:
• Active Pts requiring biomechanical enhancement.
Combo AFO

Adverb: Unilateral (R)
Classification: SAFO
Style: Combo AFO

Description:
• Supra-Malleolar combined with LSAFO, SAFO, AAFO, DAFO

Function:
• Inner Supra-Mal provides circumferential wrap (coronal plane control) whilst AFO component manipulates sagittal plane kinematics

Indication:
• Where the degree of sagittal and coronal plane control requirements differ.
## MASS Funded Lower Limb Orthoses

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Classification</th>
<th>Style (e.g.)</th>
<th>Descriptors (e.g.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Unilateral (L/R)</td>
<td>FO (not foot orthotics)</td>
<td>• SUB-MALLEOLAR</td>
<td>• Sole (Standing, Walking, Rocker)</td>
</tr>
<tr>
<td>• Bilateral</td>
<td></td>
<td>• UCBL</td>
<td>• Mid Foot Wrap</td>
</tr>
<tr>
<td></td>
<td>AFO Solid (SAFO)</td>
<td>• SUPRA-MALLEOLAR</td>
<td>• Tongue (Internal/External)</td>
</tr>
<tr>
<td></td>
<td>Articulated (AAFO)</td>
<td>• R-WRAP</td>
<td>• Dorsi-Resist Bands</td>
</tr>
<tr>
<td></td>
<td>Dynamic (DAFO)</td>
<td>• CROW</td>
<td>• Padding / Lined</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• GRAFO</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• BK CALIPER</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>plus more....</td>
<td>plus more....</td>
</tr>
<tr>
<td>KO</td>
<td>Locked /Jointed</td>
<td>AK CALIPER</td>
<td></td>
</tr>
<tr>
<td>KAFO</td>
<td>Locked /Jointed</td>
<td>STANCE CONTROL</td>
<td></td>
</tr>
<tr>
<td>HKAFO</td>
<td>Locked /Jointed</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# MASS Funded Spinal Orthoses

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Classification</th>
<th>Style (e.g.)</th>
<th>Descriptors (e.g.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSO</td>
<td>Chairback LSO</td>
<td>Chairback LSO</td>
<td>Corset LSO</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>plus more...</td>
<td></td>
</tr>
<tr>
<td>TLSO</td>
<td>Boston TLSO</td>
<td>Boston TLSO</td>
<td>Taylor TLSO</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Corset TLSO</td>
</tr>
<tr>
<td></td>
<td></td>
<td>plus more...</td>
<td></td>
</tr>
<tr>
<td>CTLSO</td>
<td>Milwaukee CTLSO</td>
<td>Milwaukee CTLSO</td>
<td>Minerva CTLSO</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>plus more...</td>
<td></td>
</tr>
<tr>
<td>CO</td>
<td>Miami J Collar</td>
<td>Miami J Collar</td>
<td>Headmaster Collar</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>plus more...</td>
<td></td>
</tr>
</tbody>
</table>
Final Points

• AOPA is committed to providing education/information regarding:
  • Qualifications
  • Professional Standards
  • Funding Matters

• AOPA and MASS working together to facilitate a ‘common understanding’ of the funding of Orthoses via MASS

• Common language of Orthoses:
  *Prefix, Classification, Style, Descriptors*

• Watch this space!