

KNOW YOUR PLASTIC ANKLE FOOT ORTHOSIS

CARE & MAINTENANCE



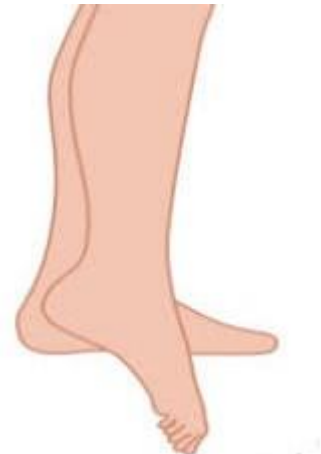
DEWENDRA PRASAD
RO(MD)/B.P.O. COORDINATOR
NIEPMD, CHENNAI
Ph.: 8072267210

Plastic Ankle Foot Orthosis

Who are the *Users*?

- *Person affected* with **NEUROMUSCULOSKELETAL (Nerve/muscle/bone) Dysfunction in Lower Limb** (Below the knee Joint Level) due to:-

1. Accident/ Trauma
2. Polio/ Leprosy
3. Born with Leg & Foot Deformity
4. Cerebral Palsy/ Meningomycele
5. Paraplegia/ Hemiplegia
6. Partial Foot Amputation(Loss)
7. Arthritic Ankle & Foot



Leads to ...

1. *Asymmetrical & Unbalanced* Mobility (Gait)
2. *Foot Dragging* to Ground (Difficulty to clear Ground)
3. *Excess User* of Pelvic & Lower Trunk Muscle
4. *Trunk Bending* One side/ Forward
5. *Fall* History
6. *Excessive* Energy Demand



HOW IT HELPS?



Improve Mobility (Gait)

Control Joint Incoordination



Improve Balance & Safety

Prevent Joint Deformity



Add in Increased Participation



Control Muscle Imbalance



Minimize Energy Expenditure



How it should be ?

Prescribed by Registered Professionals (Physiatrist, PMR, Orthotist)

Designed & Fabricated by Registered Professionals(Orthotist)

Biocompatible & Biomechanically Designed & Fabricated

Comfortable & Wearable (Feel free to use it)

Light weight & Durable (Minimizes Expenditure)

Easy to put on & Put Off (Simple in design)

Satisfied the needs of user



HOW IT IS ?



MATERIAL: High Temperature Thermoforming Plastic

BIOCOMPATIBLE: YES

SHAPE: "L" (Conform Body Shape)

DESIGN: According to Prescription
(Biomechanical Control Needs)

TYPE: Articulated & Non- articulated

POSITION: Cover Below the Neck of Lateral Bone



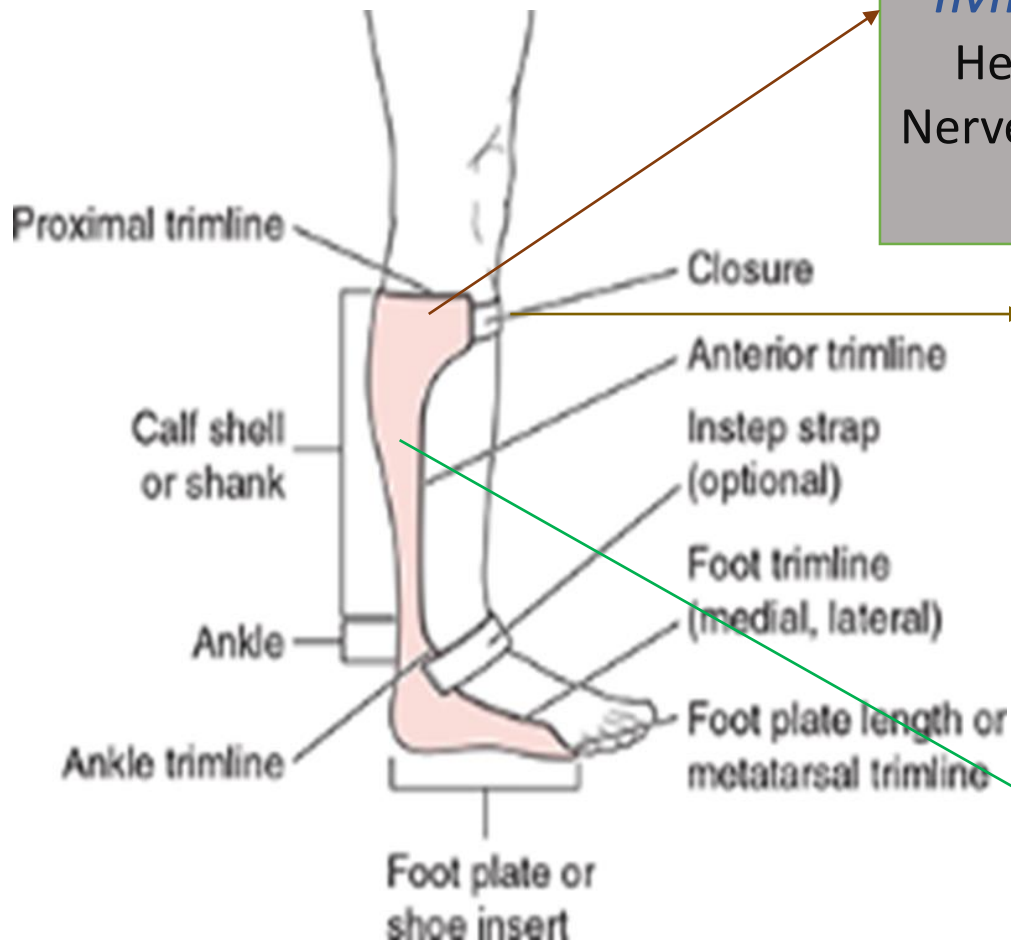
What You should know?

ARE YOU A **NEW USER**? If **YES**: You/Caregiver **must Know**:-

1. **Aims & Objectives** of Prescription (Fulfil your biomechanical needs)
2. **Wearing Schedule** (Strictly follow wearing instruction)
3. **Materials** used in fabrication (To avoid any allergic effect)
4. **Parts/ Components** of device (Being an assistant)
5. **Care & Maintenance** (Avoid undue breakdown)
6. **Follow Up** Schedule (Review yourself & Device)
7. **Referral** , If any



PARTS/COMPONENTS:



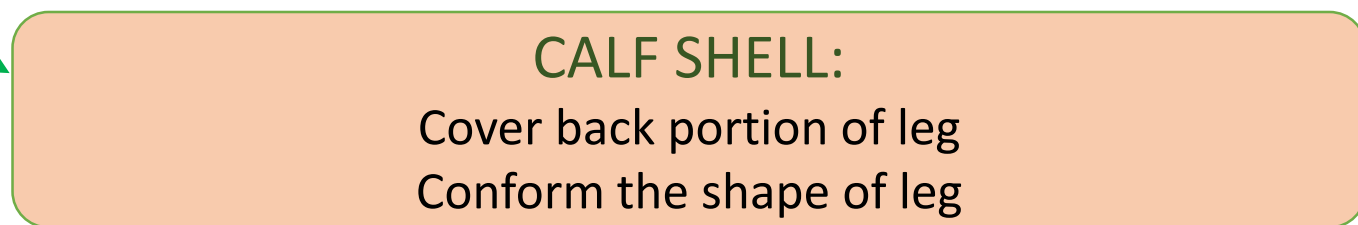
PROXIMAL TRIMLINE:
 $\frac{3}{4}$ -1 inch below the neck of fibula
IMPORTANT: If it is on & Around Head & Neck it will damage your Nerve – Leads to Tingling Sensation & Further Nerve damage



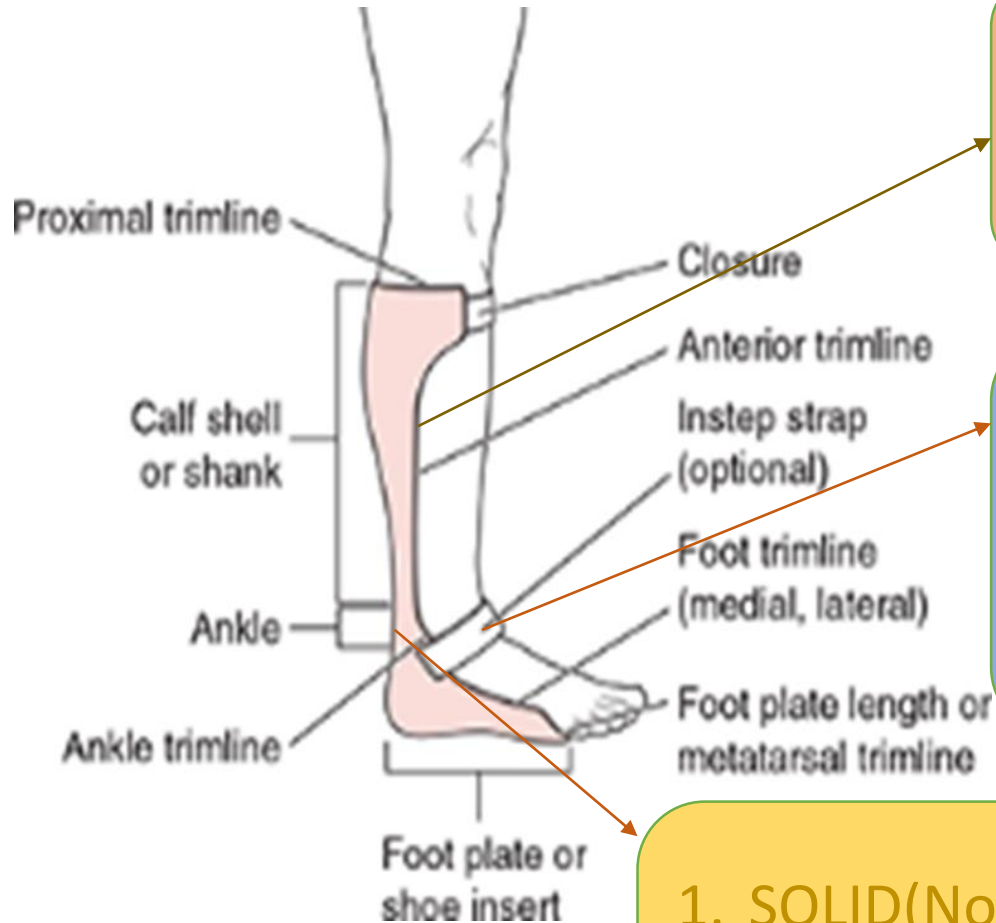
CLOSURE:
Encircle & Secure on the Front Portion of leg
IMPORTANT: Should have Soft Foam Padding- Prevent skin abrasion, bruising etc.



CALF SHELL:
Cover back portion of leg
Conform the shape of leg



PARTS/COMPONENTS:



ANTERIOR TRIM LINE(EDGE):

OPEN FROM THE FRONT SIDE
Trim line(Edge) covering depend on design

INSTEP STRAP:

Depends on Biomechanical needs it may or may not be required
If, using with footwear – not required
If, Using without footwear – Required

IMPORTANT: If, required- Covered with Soft Foam Padding
(Prevent Skin Damage)

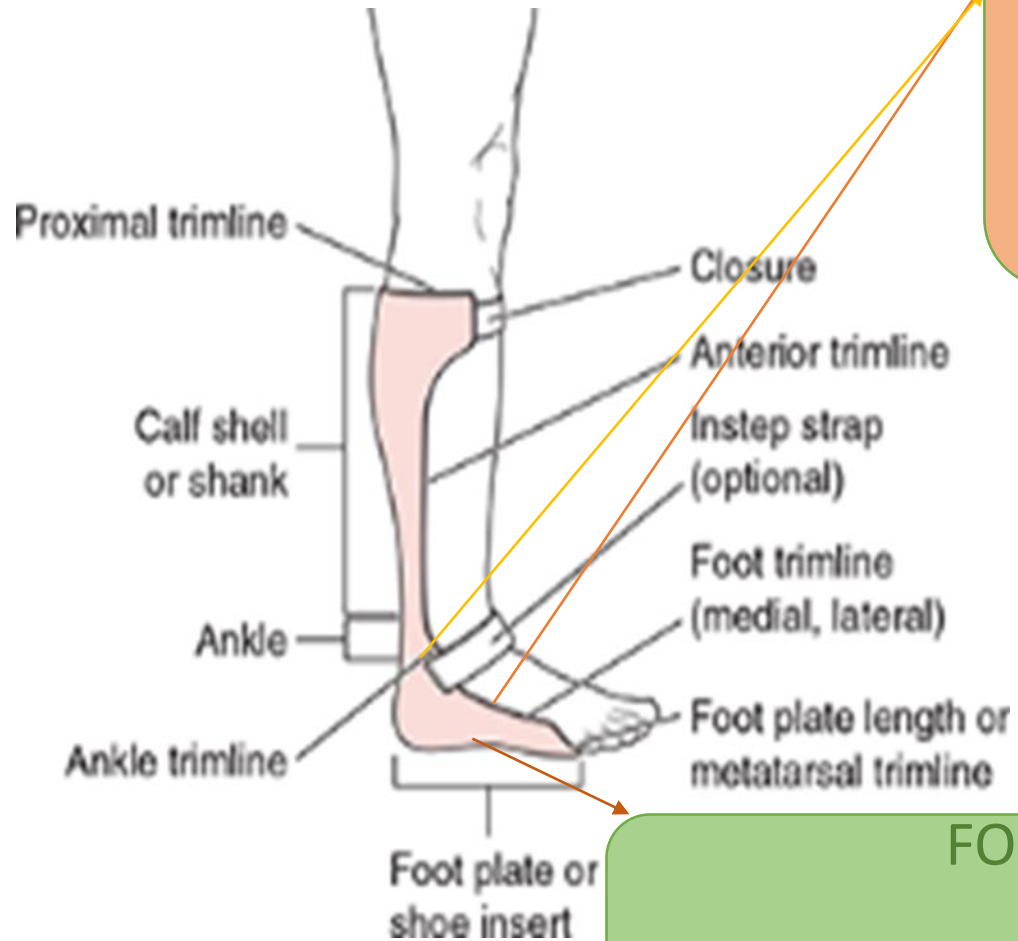
ANKLE DESIGN:

1. **SOLID(Non-articulated)**- No Articulation (Single Piece Design)
2. **Articulated** – Joint Motion Available (Two Piece Design)
Uses Plastic Joint For Motion

IMPORTANT: Always *check for CRACK* In BOTH Situation



PARTS/COMPONENTS:



ANKLE & FOOT TRIMLINE(EDGE):

Depends on Biomechanical Control Needs

IMPORTANT: Selection of Footwear Depend on it,
Preferably ONE SIZE EXTRA LENGHT

FOOT PLATE LENGTH:

Depends on Biomechanical Control Needs

IMPORTANT:

If, it is FULL LENGTH- NO Motion in Foot Joint

If, it Metatarsal Length- Allow Toes Motion

If, it is Mid Foot Length- Allow Mid & Fore Foot Motion

FOOT PLATE/ SHOE INSERT: Foot REST on it;

If, used with foot wear- NO Outer Sole Needed

If, used without Footwear- Outer Sole Required

IMPORTANT: *Check for Outer Sole Condition*

How to Donning (Wear) It?

IMPORTANT INSTRUCTIONS:

I. **Before and After** Donning (Wear) & Doffing (Wear Off)-

Check Thoroughly for Followings:-

1. Any Crack along the Trim line(Edge)
2. Any Deformation
3. Any Tiny Hard Objects (*Enemy of Insensate Foot*)
4. Any Wrinkle in Soft Padding
5. Footwear Shape & Size (*Affect Your Balance & Safety*)



II. **Strictly follows** the user instructions

How to Donning (Wear) It?

Remember: *If*, you can **do yourself EXCELLENT OR, ASK for ASSISTANCE**

STEP 1. **Inspect** it

STEP 2. **Clean** it

STEP 3. **Sit on Chair** OR Any Flat Raised Surface (*Preferably Knee Joint 90 Degree Bend*)

STEP 4. Hold it in **Correct Position** (Right OR Left Leg Side OR Both side)

STEP 5. **Relax** Your Leg (*if, Tightness* is Present in Ankle Joint)

STEP 6. **Pull** the Leg Socks (*Preferred* Cotton Socks)

STEP 7. **Insert** Your Leg inside the Device(With one hand lift your leg by holding toe & other hand holding the device)

STEP 8. **Tighten** the Proximal Closure(Velcro Hook& Loop) & Then Instep

Strap(*Optional* for Using with Footwear; *Compulsory* for Using Without Footwear) [*REMARKS: Don't Overtighten the Velcro Hook & Loop*)



How to Donning (Wear) It?

STEP 9. Select the Right Size of Footwear (*Preferably One Size Extra*)

STEP 10. Wide Open the Shoe Throat Opening (*Preferably use Laced Type*)

STEP 11. Inspect & Check Inside of Footwear (*Look for Foreign Particles*)

STEP 12. Slide Your Foot & Foot Plate as One Piece (*No Wrinkle of Sock & Insole of Footwear*)

STEP 13. Check for Heel Position & Comfort for Toes (*Important Insensate Foot*)

STEP 14. Tighten the Shoe Lace (*Avoid Overtightening*)

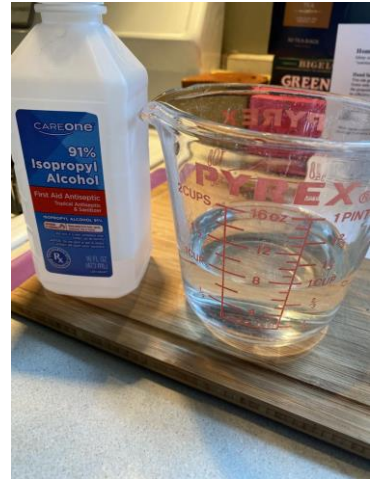
STEP 15. *Lets Walk!!!!*



How to Care(Store) It?

Remember: Your Device is made of **Heat Sensitive Material** & Acid (to Some extent)

1. Keep Away from High Heat/ Temperature Area
2. Store in Shaded Place (Avoid Direct Sunlight Exposure for Longer Period)
3. Never Use Sharp Object on it
4. Clean Velcro Hook & Loop (Use Tooth Pick/ Lint Roller/ Duct Tape/ Tooth Brush/ Finger Nail for Removing Clothing fuzz/hair etc.)
5. Wash the Socks Regularly
6. Wash the Device with Mixture of Anti Septic Liquid & Lukewarm Water
7. Dry in Cool/ Shaded Place
8. Check for Shoe Shape & Size
9. Check Outer Sole of Shoe (***If, Deformed/ Worn out- Repaired OR Replace it***)
10. Check for Loosening of Rivet joint (Velcro Hook & Loop)



For More Information : Write to : niepmd@gmail.com OR,

Contact : +91- 044-27472046, 8072267210