Improving the quality of life
one step at a time

image Orthopedic Lab

BIOMECHANICAL ASSESSMENT & GAIT ANALYSIS

PATIENT NAME :_____ SCAN NUMBER:_____

CHIEF COMPLAINT:_____

BIOMECHANICAL ASSESSMENT

FOOT (Type or Appearance)	**NWB**	**WB**
High Arch	L / R	L / R
Medium Arch	L / R	L / R
Low Arch	L / R	L / R

Important to assess the navicular drop between Non-weight bearing VS. Weight bearing
Overview of architecture of MLA can be visual or marked in mm differential

ANKLE R.O.M.	**NWB**	**WB**
Adequate	L / R	L/R
Limited	L / R	L/R

Ankle equinus issues can affect the secondary symptoms that patients develop
NWB: is there and issue with gastrocnemius tightness or bony end ROM

SUBTALAR JOINT ROM	
Hypermobile	L / R
Within Normal Limits	L / R
Limited/Restricted	L / R

Moving the subtalar joint to assess the range of motion in passive, NWB

KNEE POSITION	
Normal	L / R
Genu Varum	L / R
Genu Valgum	L / R
Tibial Varum	L / R

The overall angulation of the lower extremities

MIDTARSAL JOINT ROM	
Hypermobile	L / R
Normal	L / R
Restricted	L / R

Assessing the midtarsal range of motion, passive NWB

CALCANEAL POSITION NON-WEIGHT BEARING	
Normal	L / R
Varus	L / R
Valgus	L / R

The position of the heel, in NWB, Subtalar joint neutral position. This is the "gold standard" i.e. foot's most stable position and one we are trying to reflect in orthotic therapy

GAIT ANALYSIS

DIAGNOSIS:

Indicate a diagnosis and often insurance companies want more specific than "pes planus"

NOTES:

MIDTARSAL FUNCTION AT MIDSTANCE	
Normal	L / R
Pronated	L / R
Supinated	L / R

During dynamic gait cycle, what is happening with the midtarsal joint

1st RAY Position	
Plantarflexed	L / R
Normal	L / R
Extended	L / R

In NWB, STJ neutral what is position of the hallux

LEG LENGTH DISCREPANCY

Short By L ____ mm/inches R ____ mm/inches

Functional Structural

Important to note in a biomechanical/gait assessment.

HALLUX Range Of Motion	
Average	L / R
Limitus	L / R
Rigidus	L / R
Functional Hallux Limitus	L / R

ROM in Hallux important to assess. Affect on plantar aponeurosis

ANGLE OF GAIT	
Within Normal Limits	L / R
Abducted	L / R
Adducted	L / R

What is general overall nature of the angle of gait? Is there internal rotation occurring that could impact the torsion of supporting joints

TOE POSITIONS (could be biomechanical in nature/development)	
Hallux Abducto Valgus (i.e. Bunions)	L / R
Claw/ Hammer Toe	L / R
Straight (within normal limits)	L / R

CALCANEAL POSITION WEIGHT BEARING	
Normal	L / R
Varus	L / R
Valgus	L / R

The position of the heel in a relaxed stance position. Viewed from rear