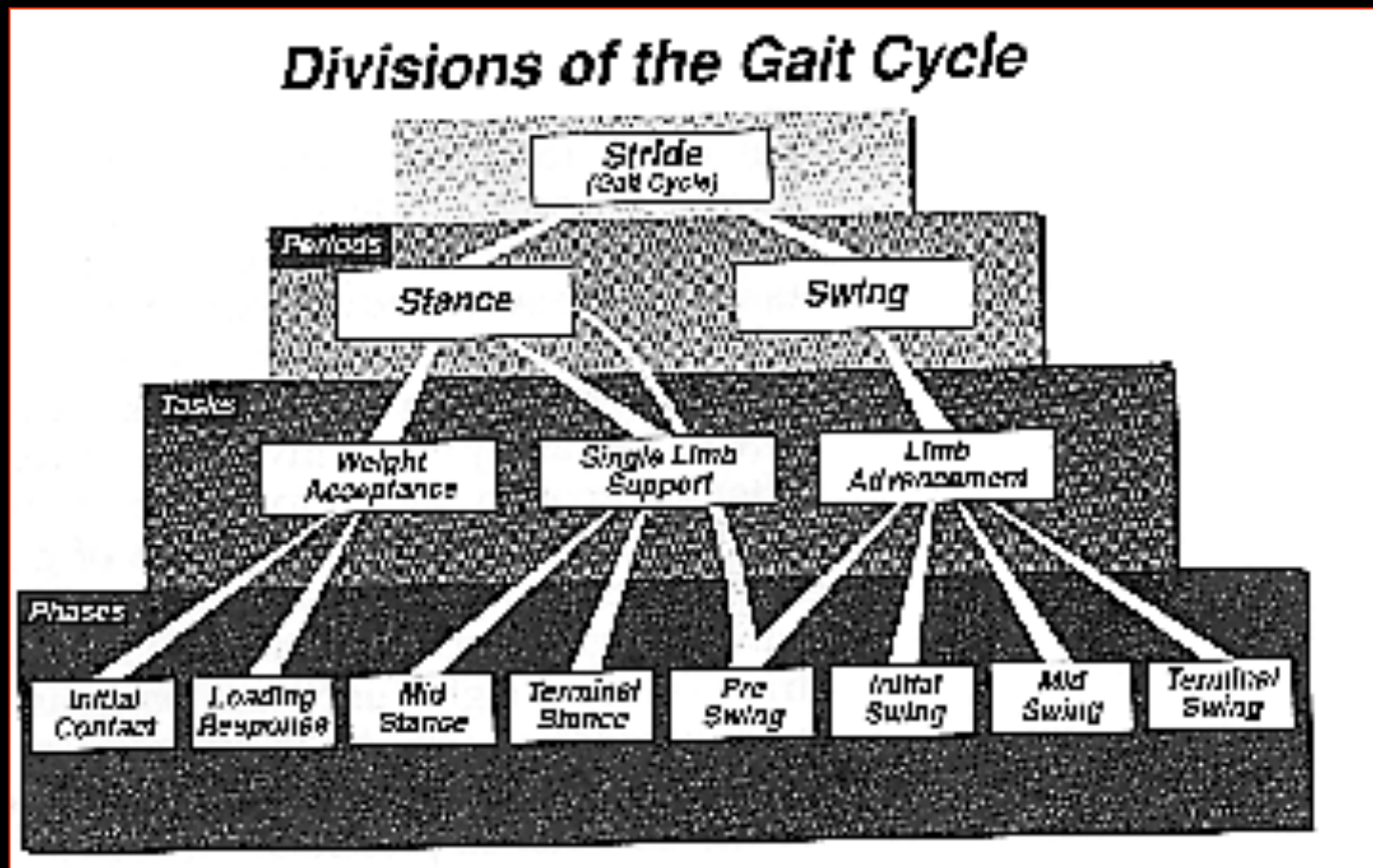
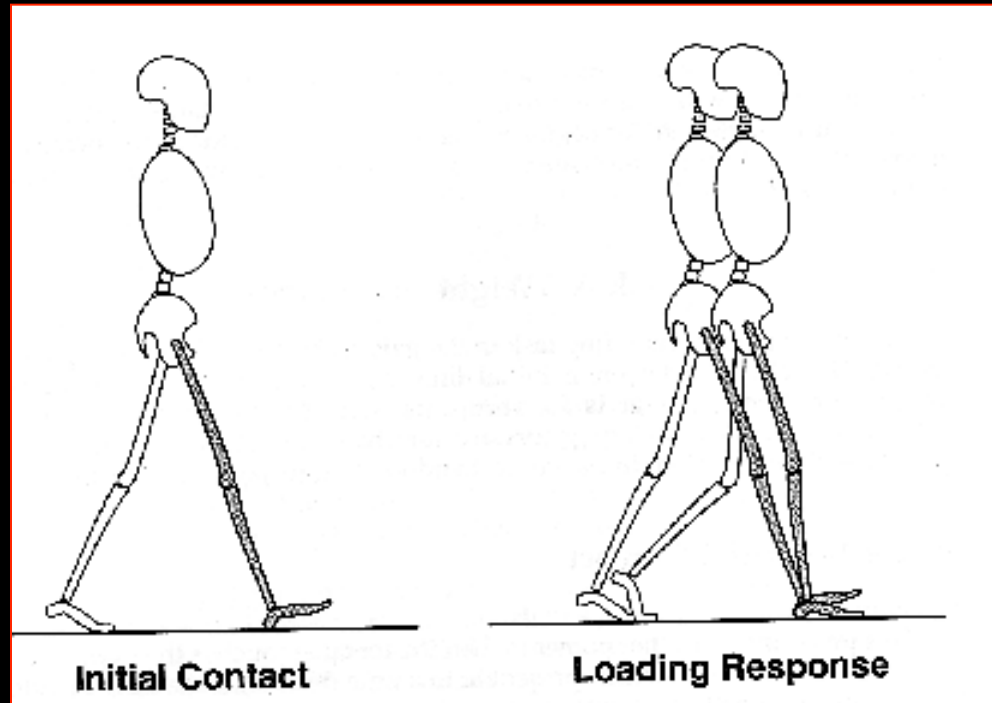


# LA MARCHE NORMALE

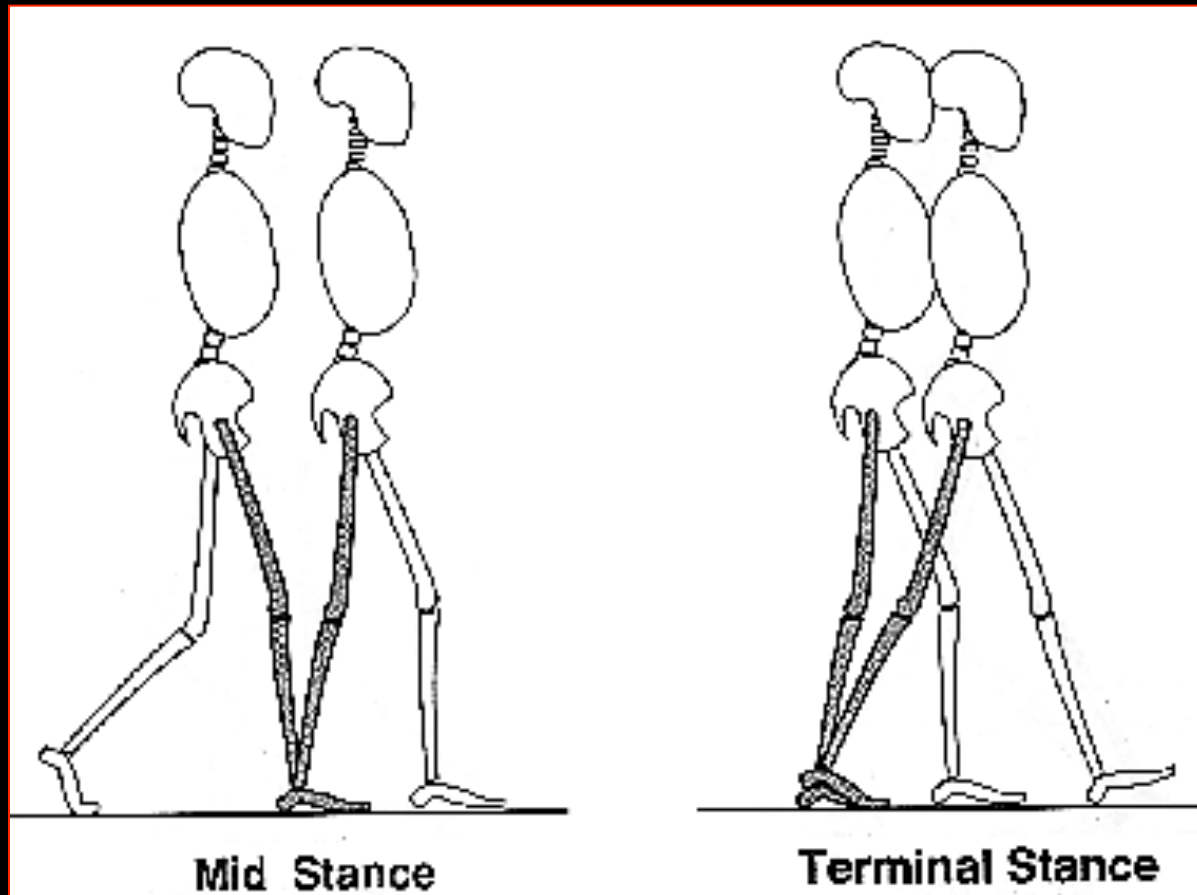
# DIVISION DU CYCLE DE MARCHE





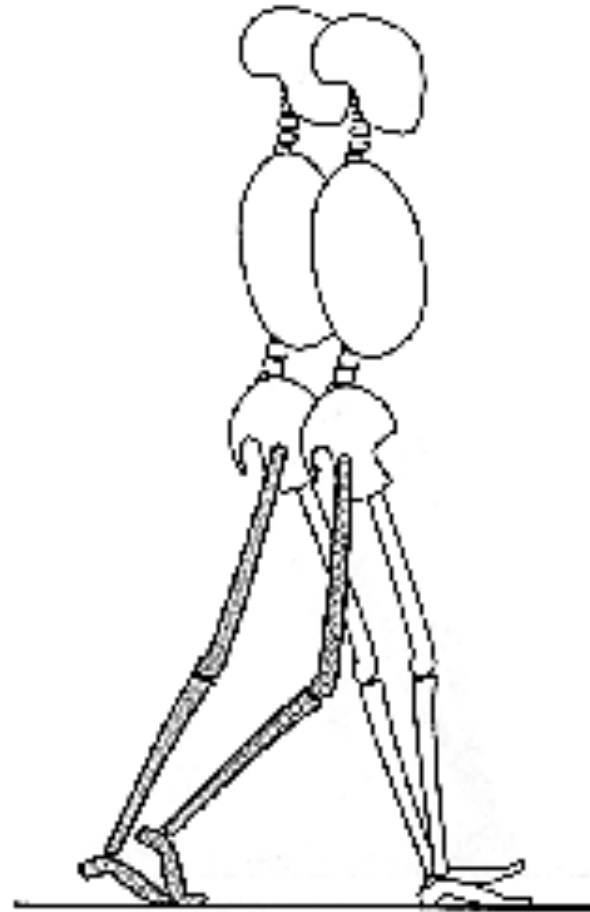
**CONTACT INITIAL**  
**0 – 2%**

**REPOSE A L' APPUI**  
**2 – 10%**



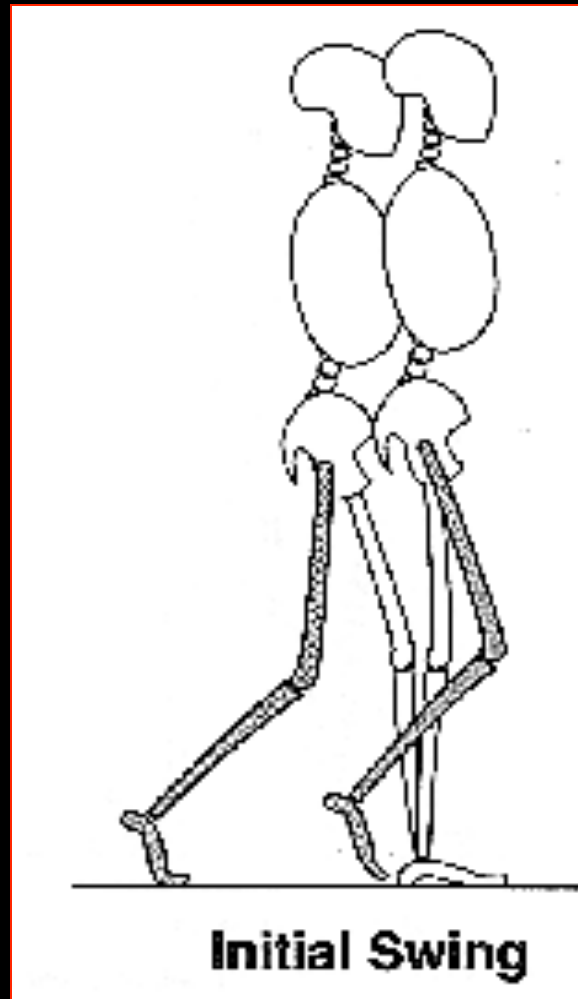
**MILIEU D' APPUI**  
**10 – 30%**

**FIN D' APPUI**  
**30 – 50%**

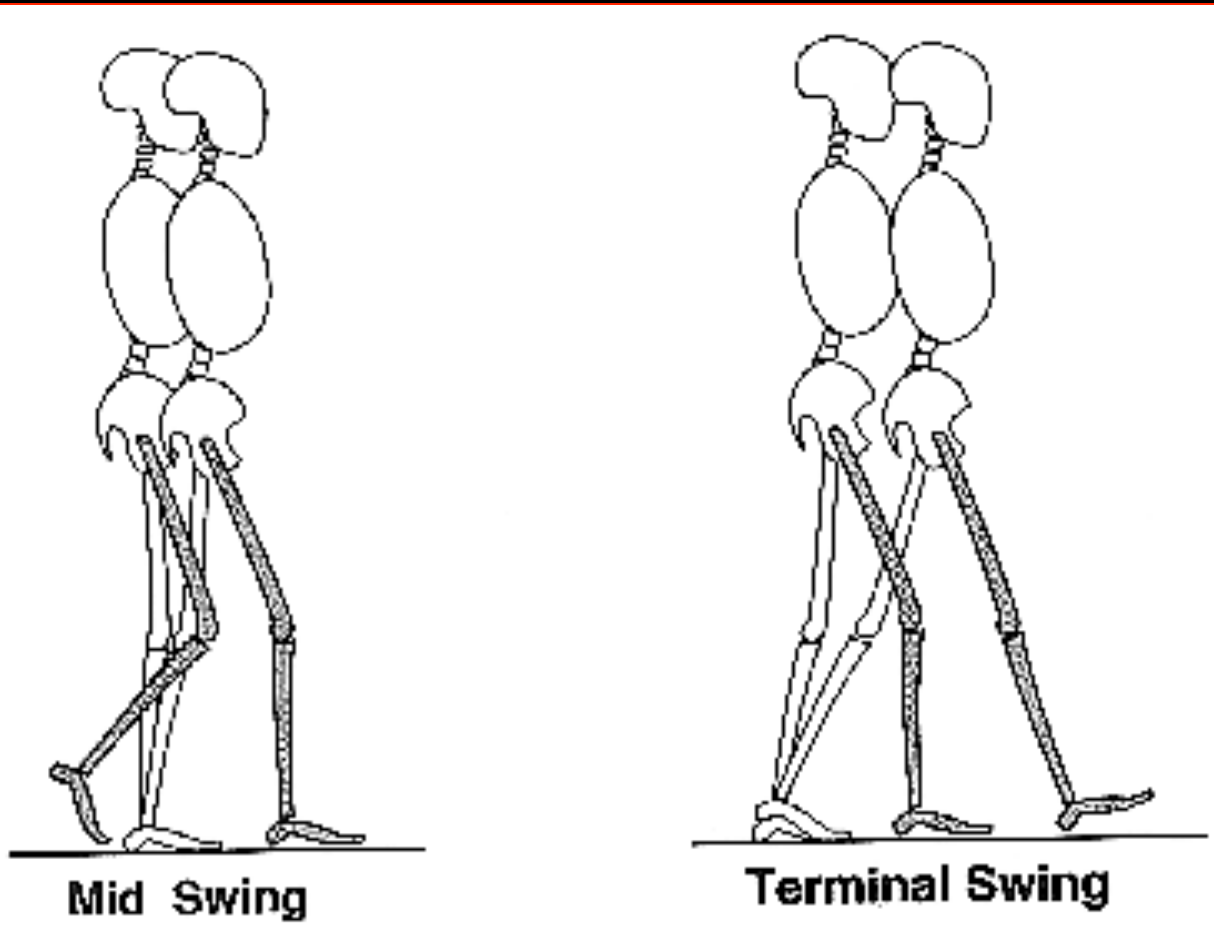


Pre-Swing

**PRE OSCILLANTE**  
**50 – 60%**

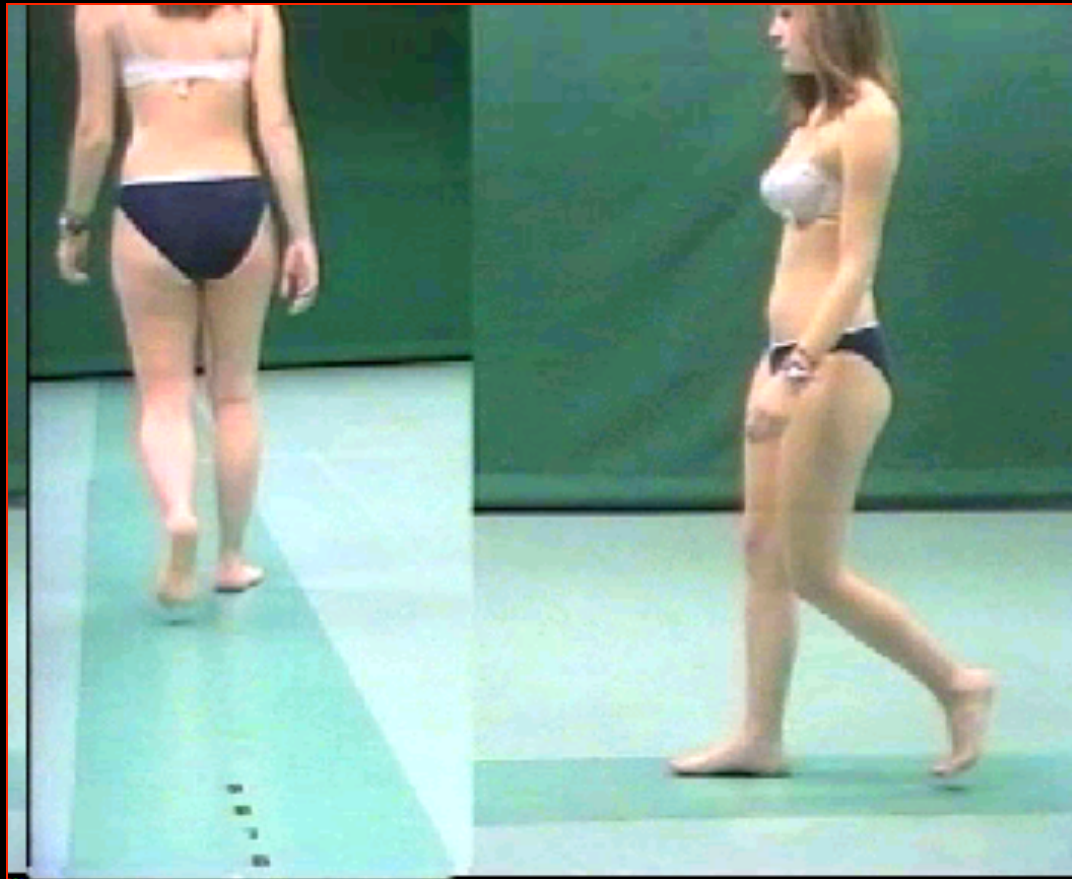


**PRE OSCILLANTE INITIALE**  
**60 – 73%**

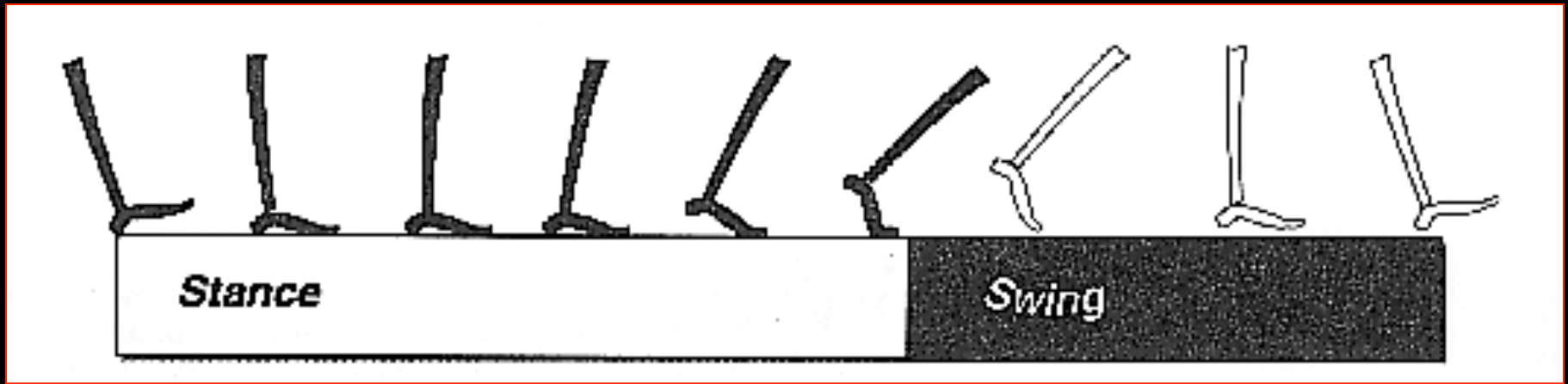


**PRE OSCILLANTE MEDIANE**  
73 – 87%

**PRE OSCILLANTE FINALE**  
87 – 100%





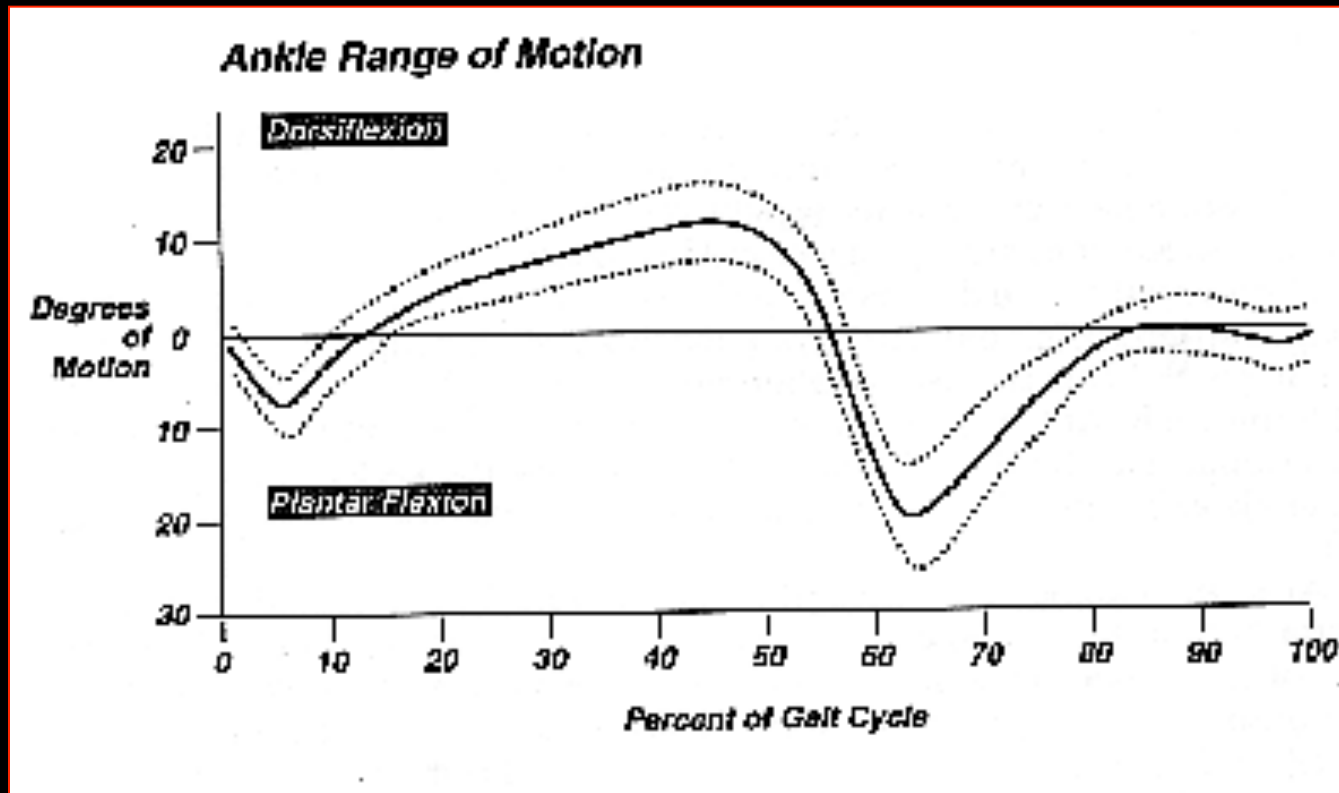


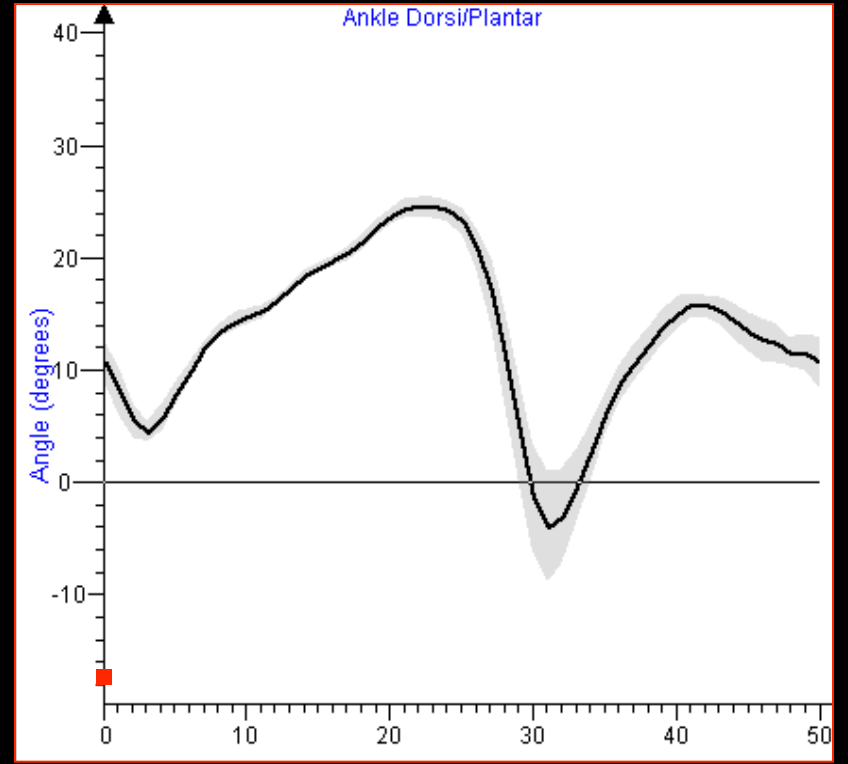
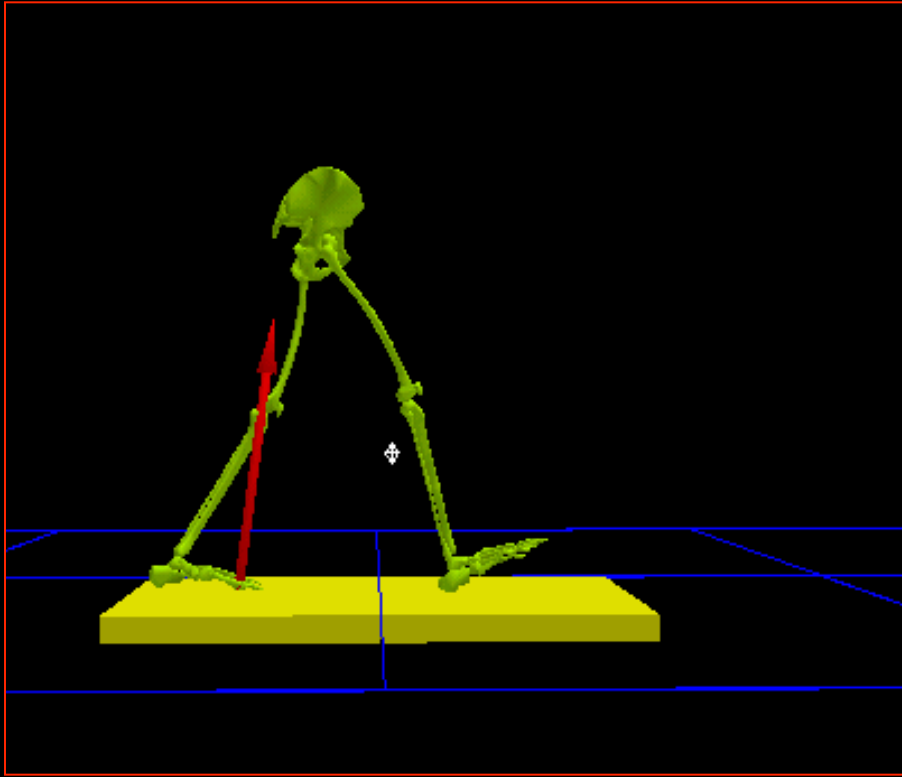
**APPUI**

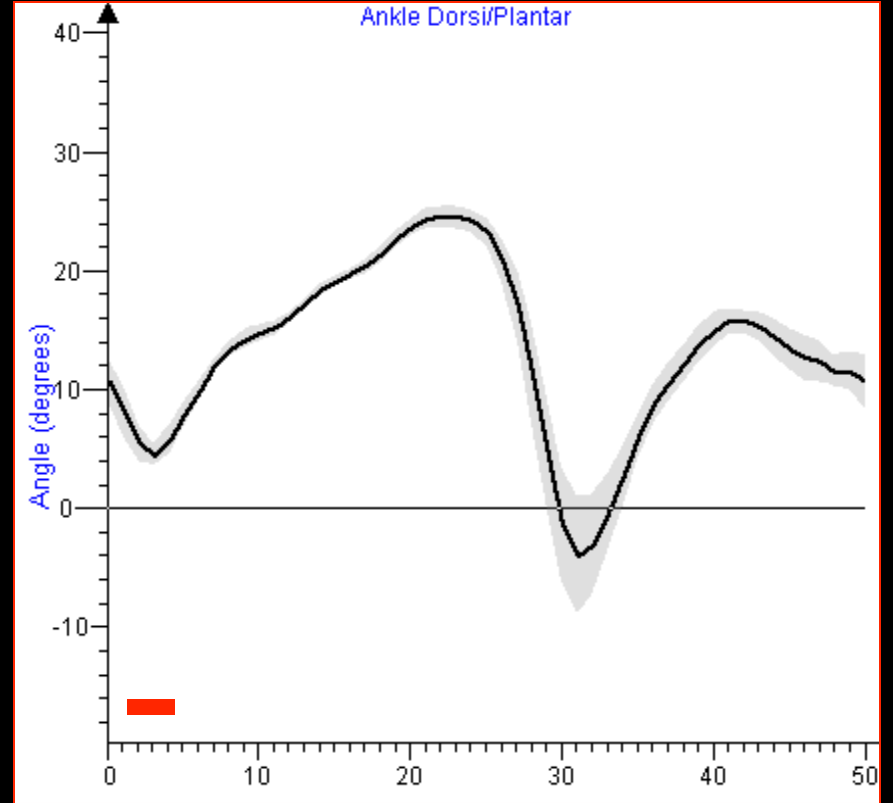
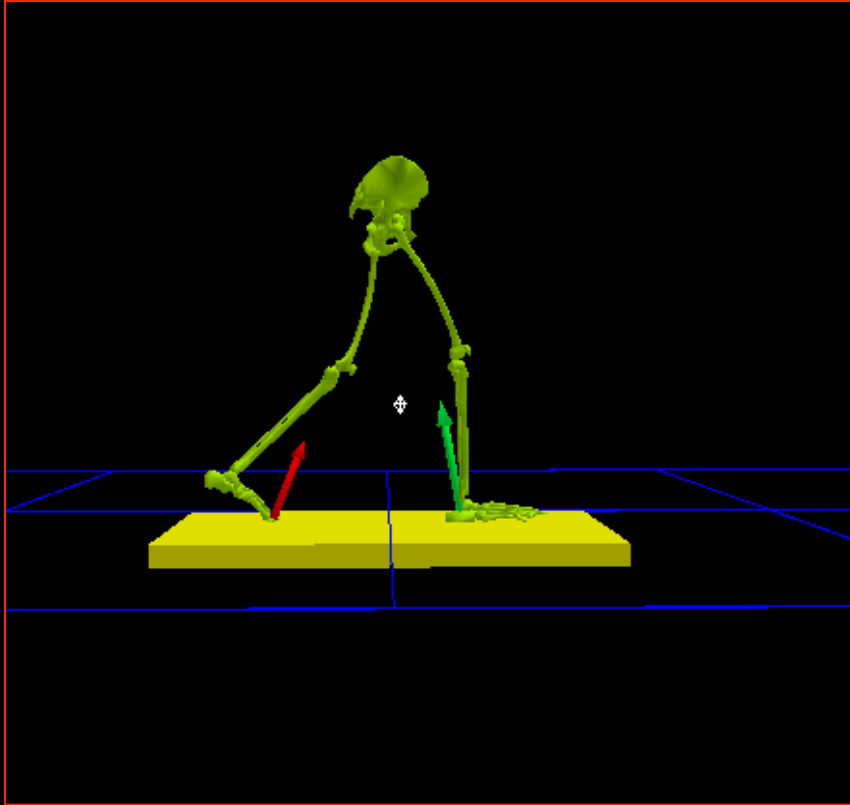
**OSCILLANTE**

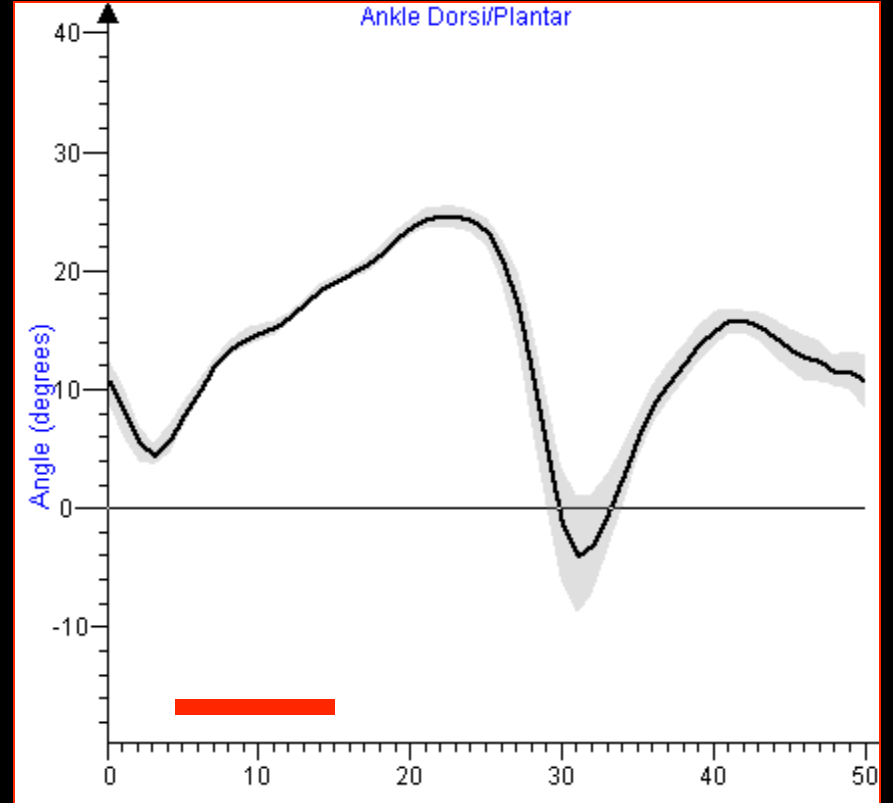
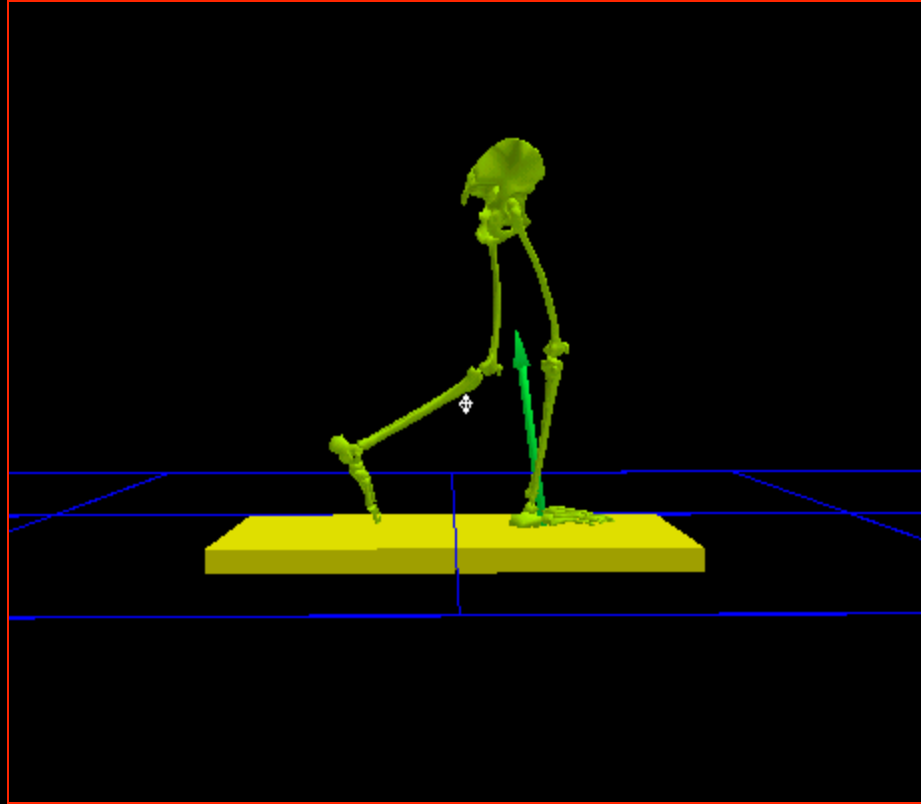
# CINEMATIQUE DE LA CHEVILLE

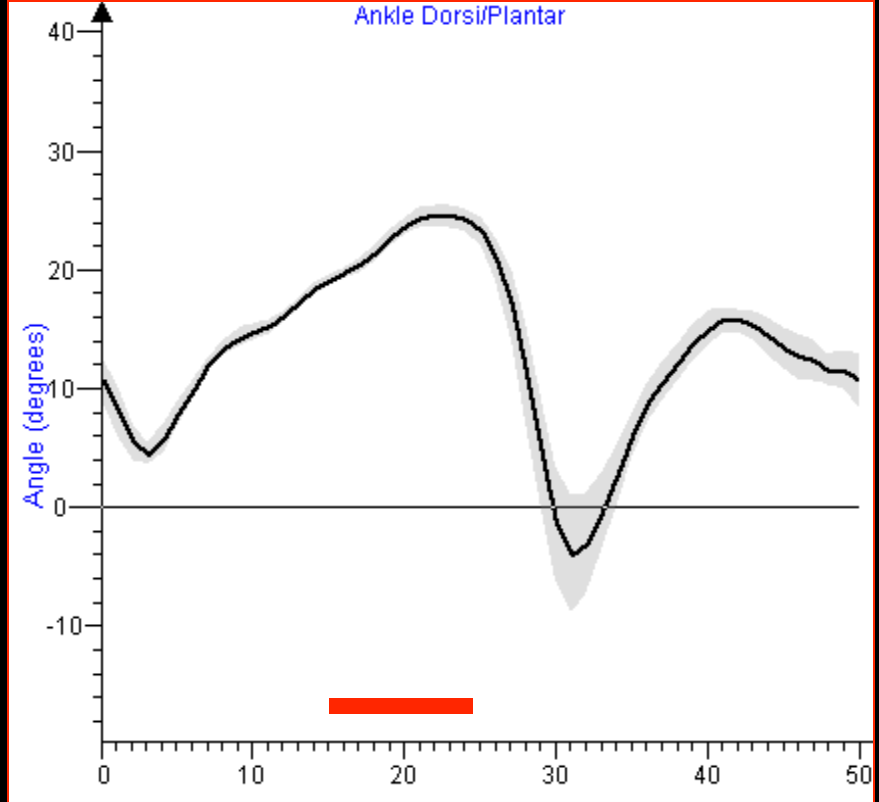
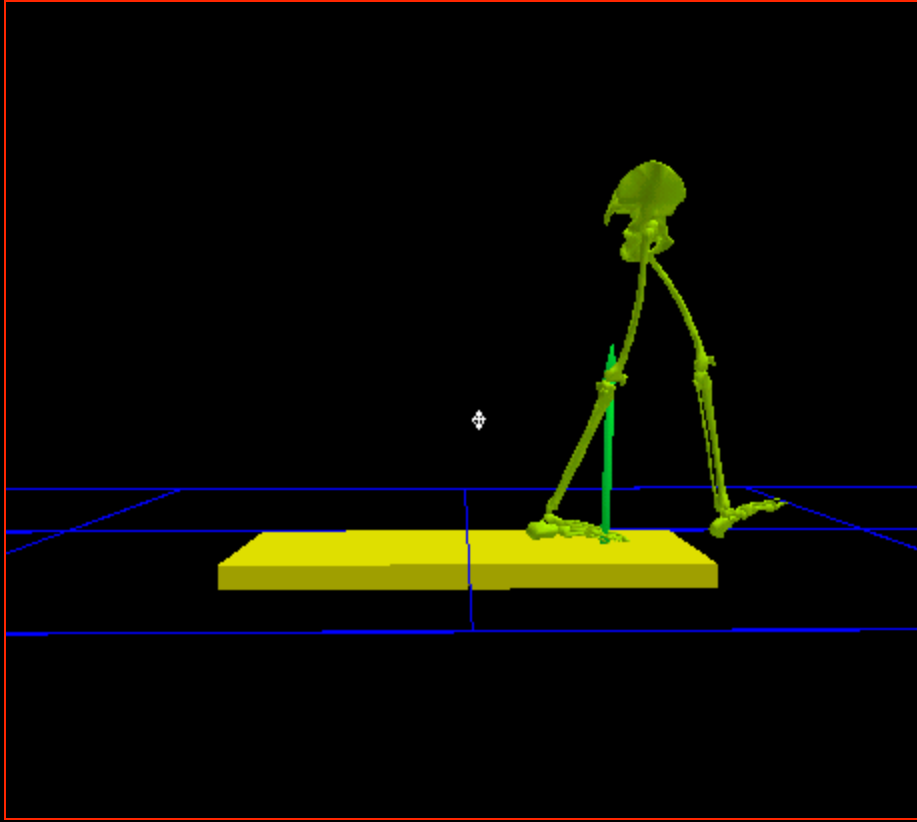
## Plan sagittal

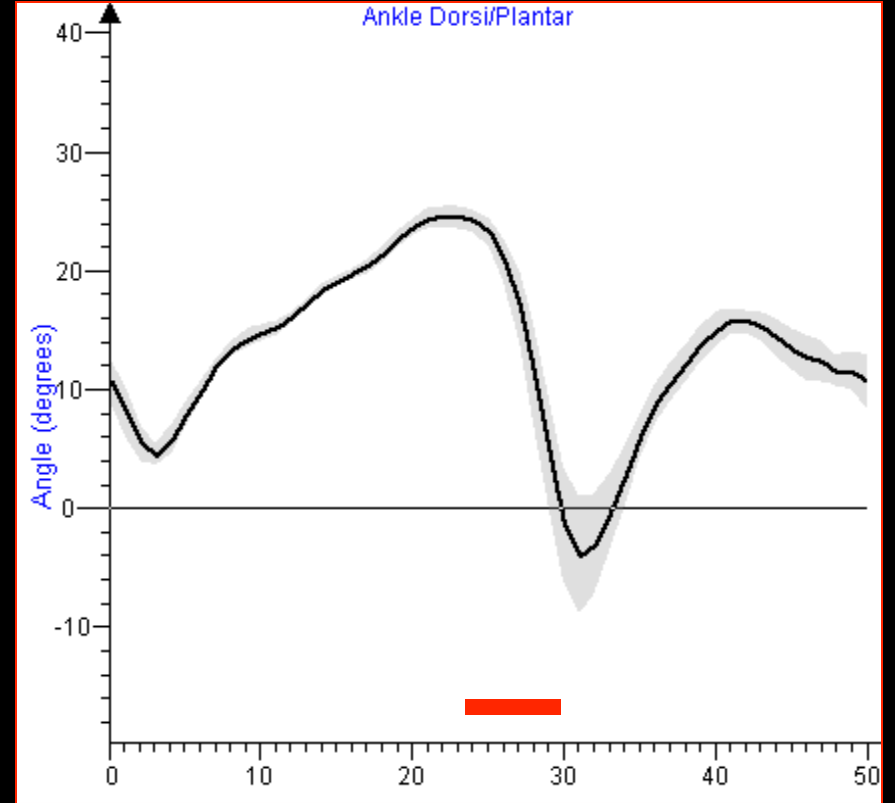
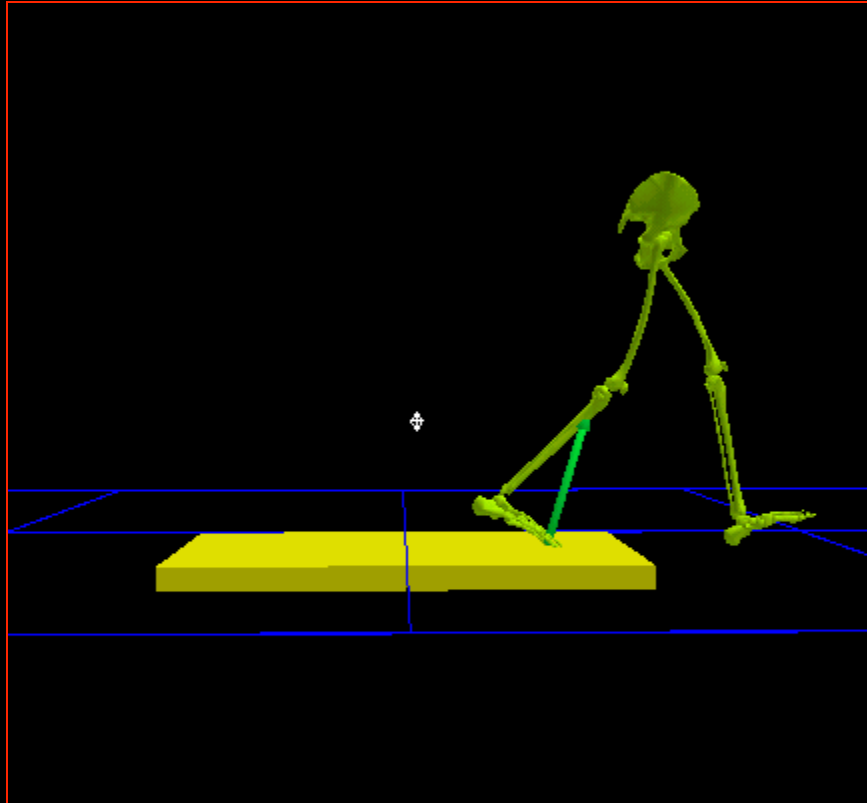


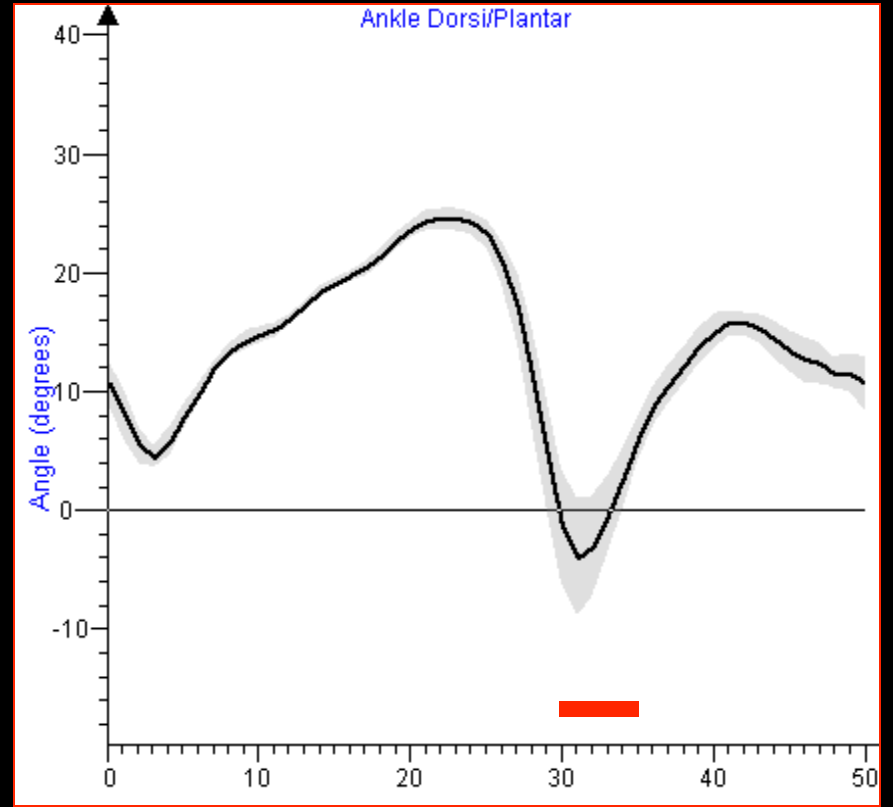
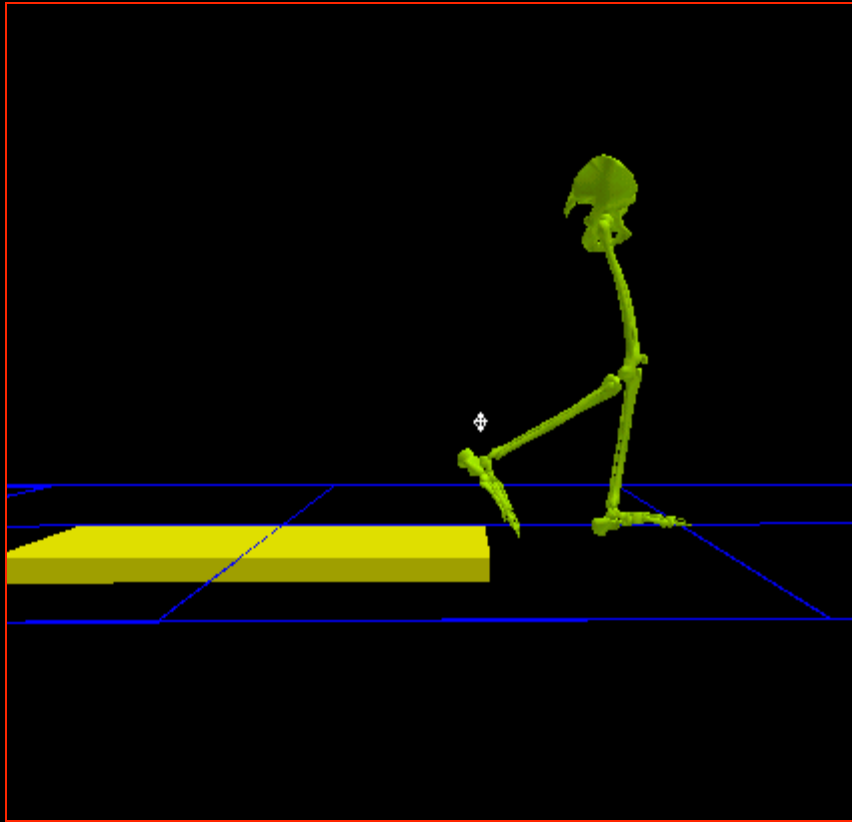




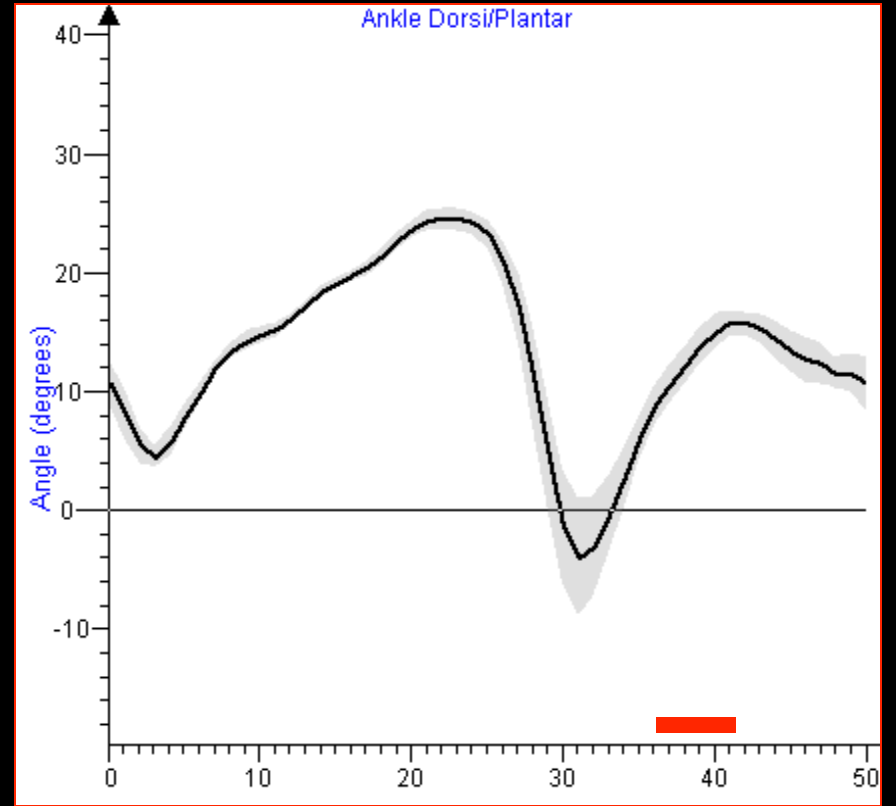
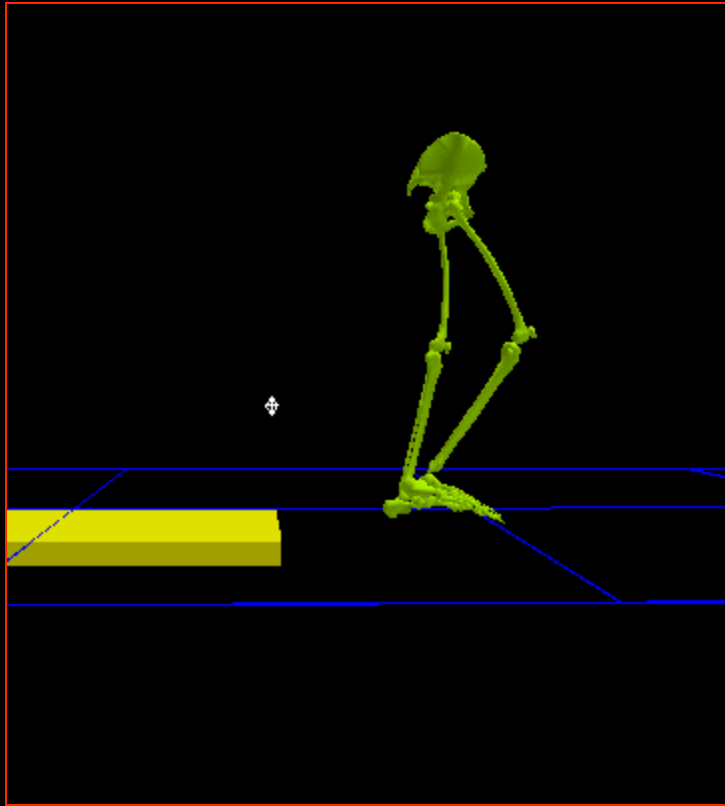


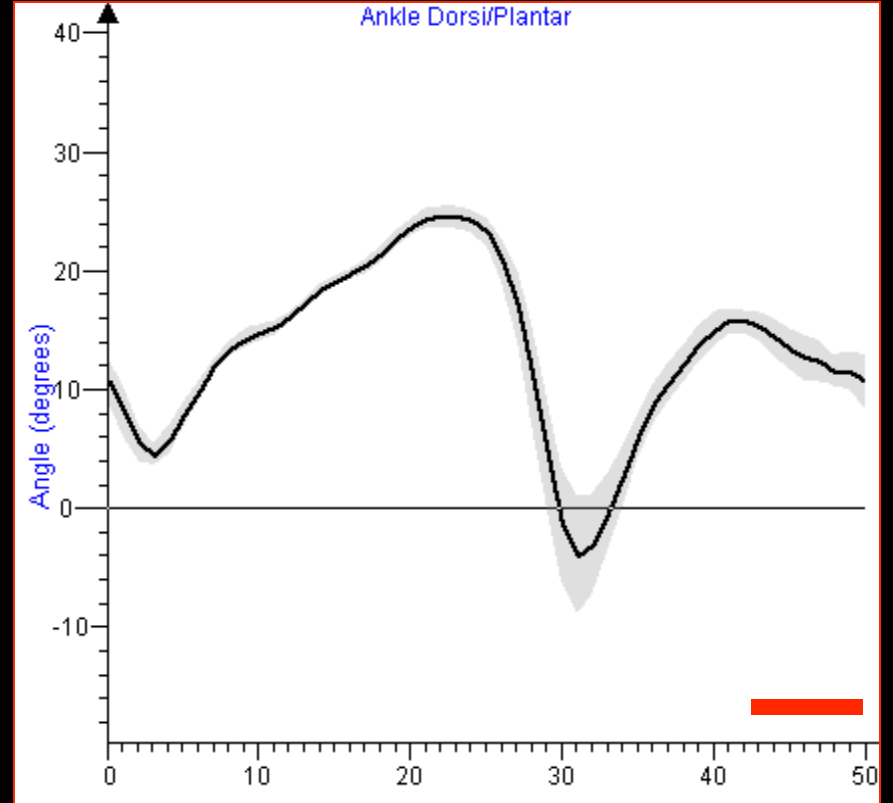
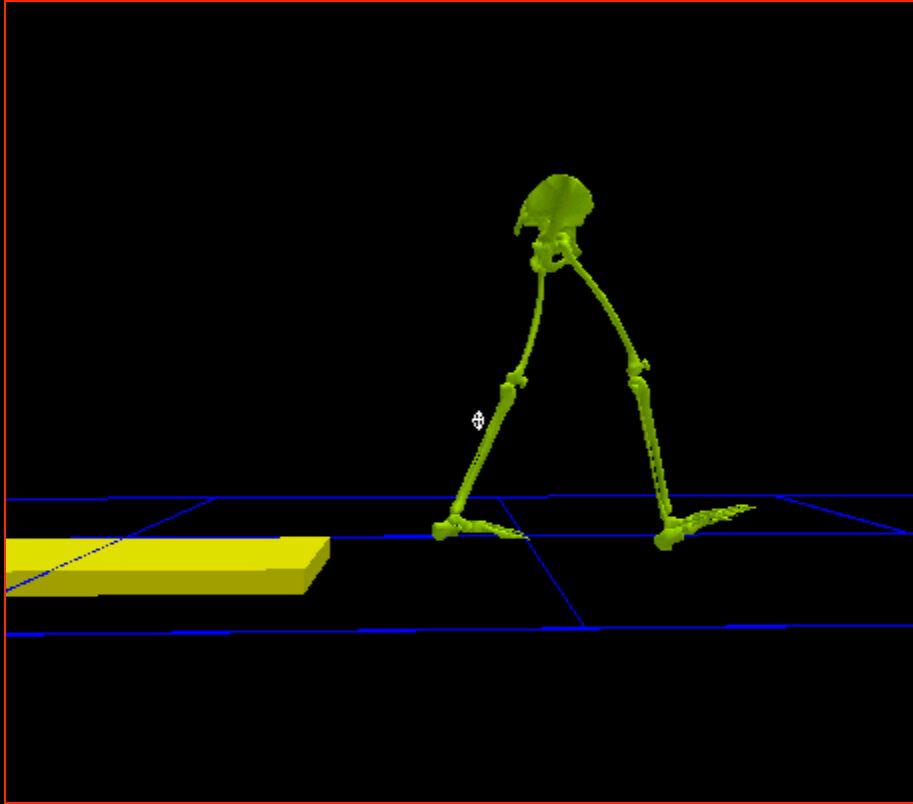


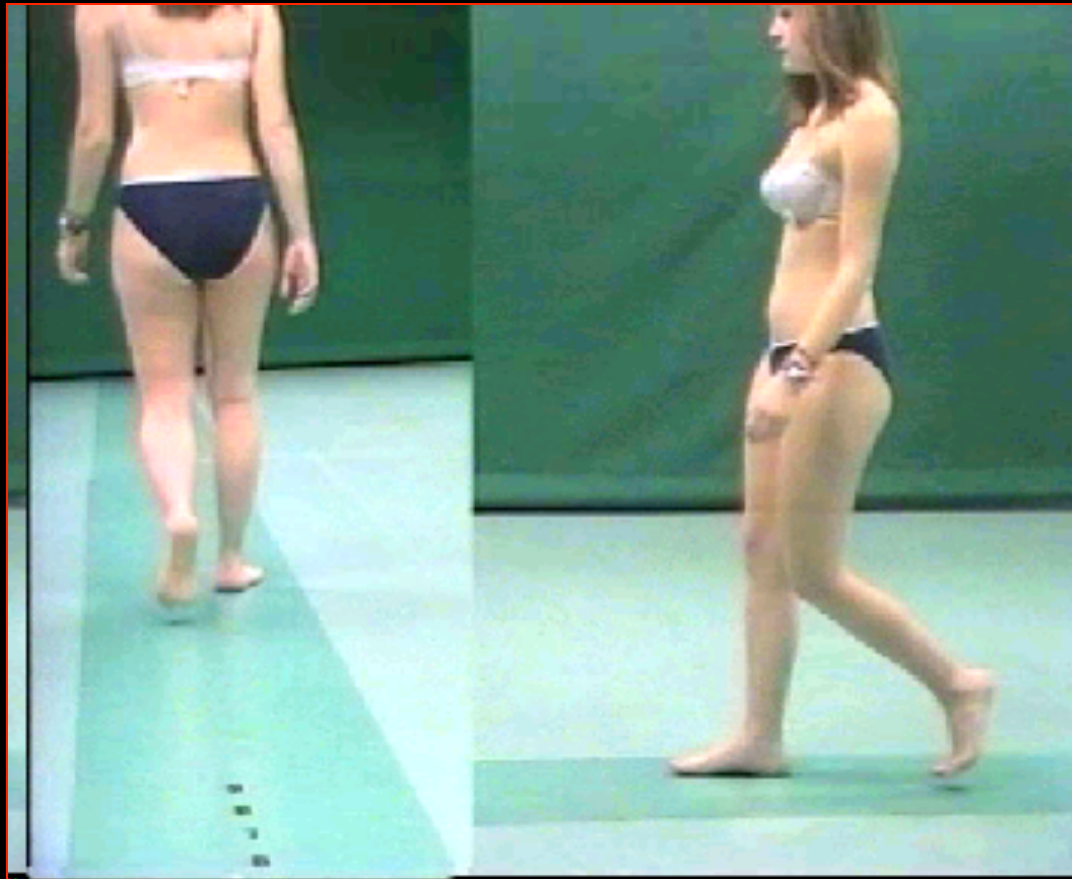






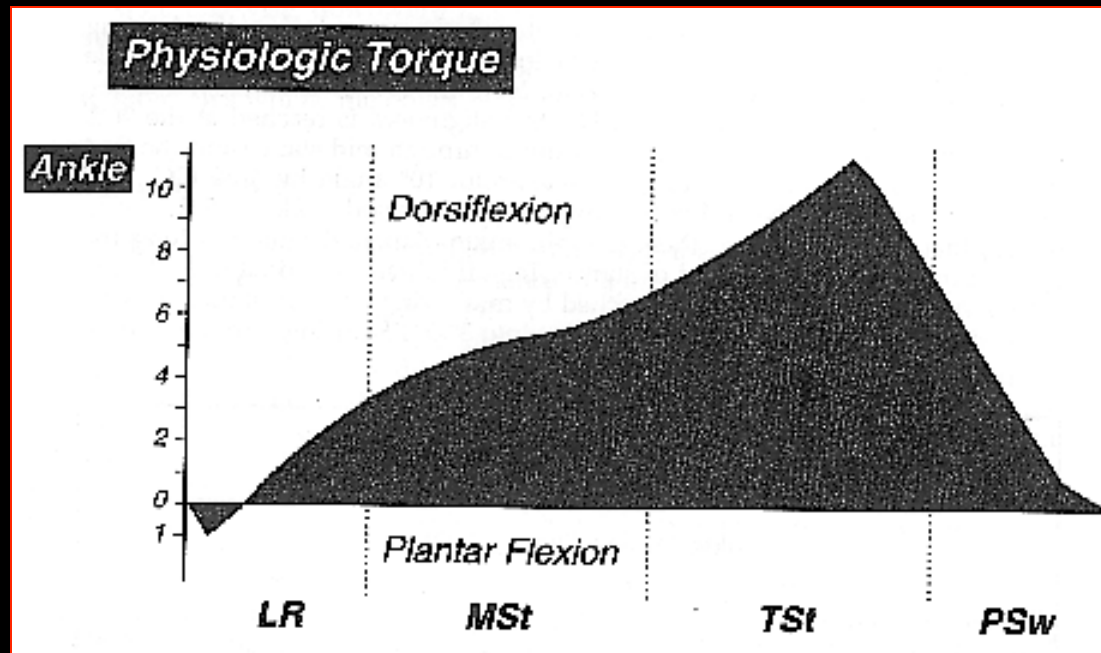


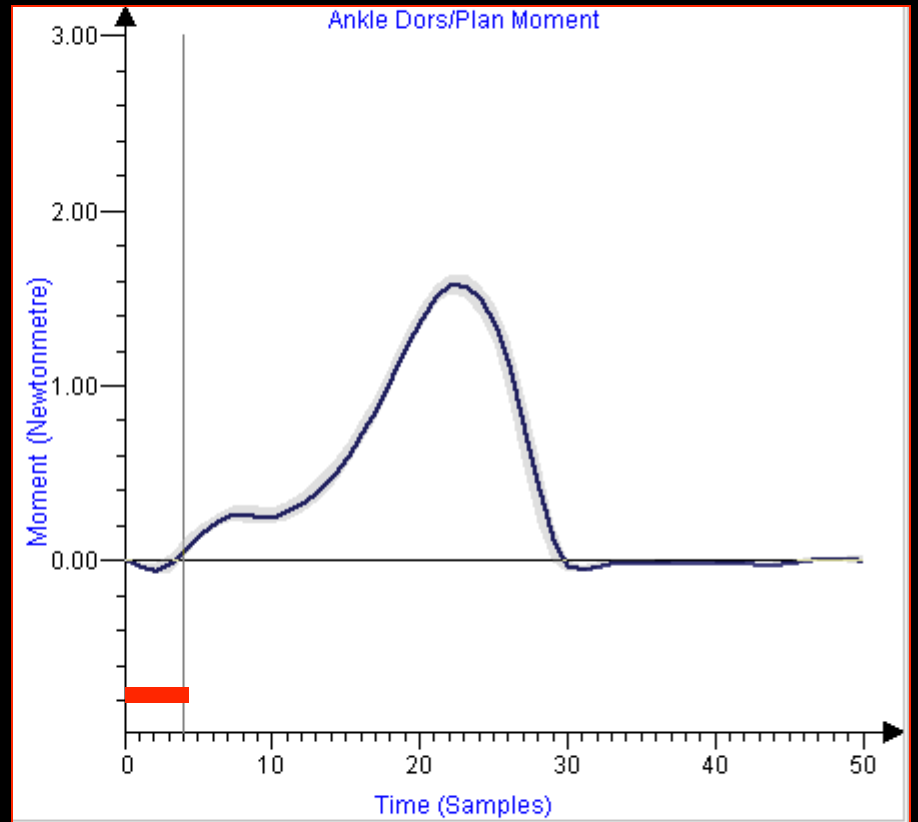
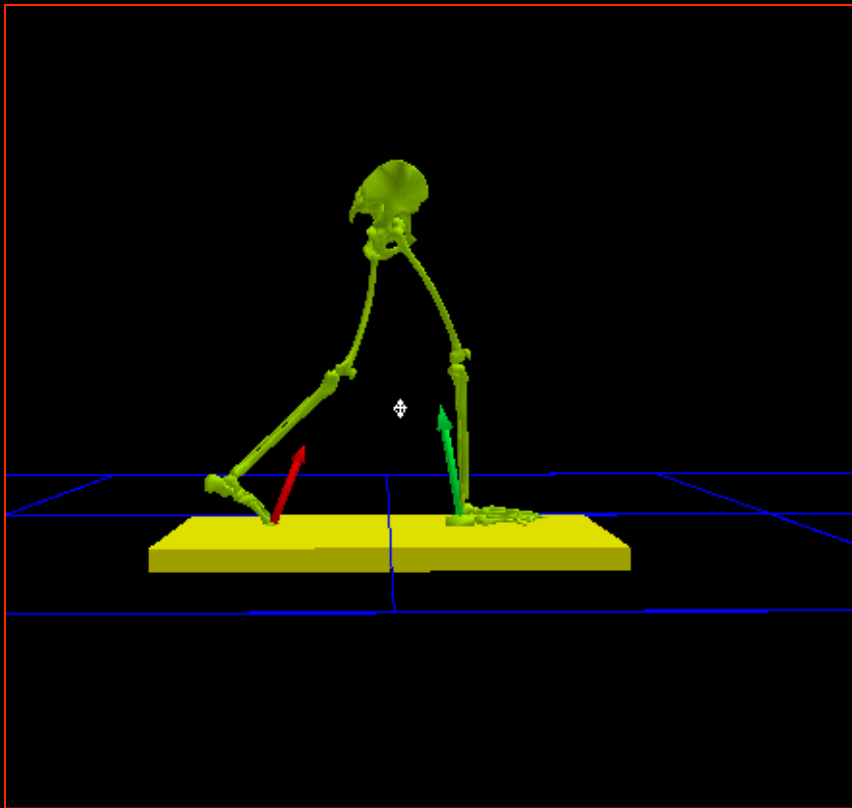


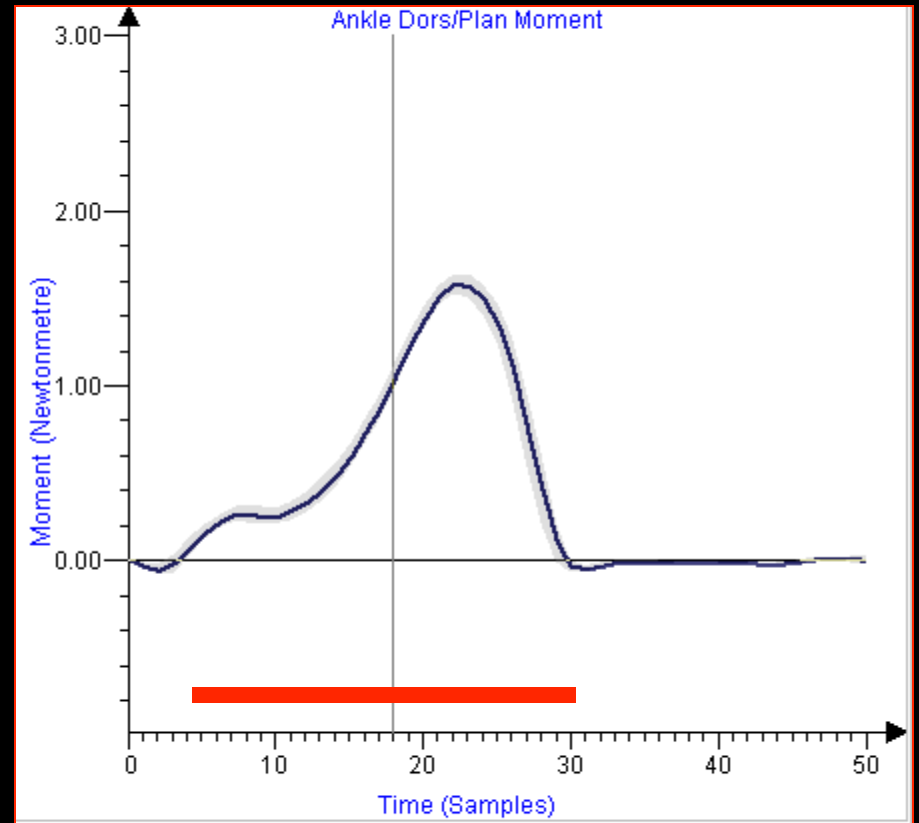
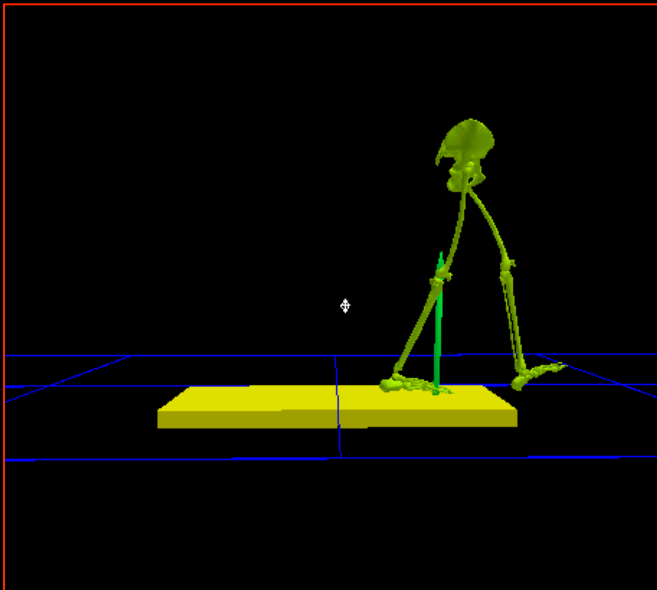
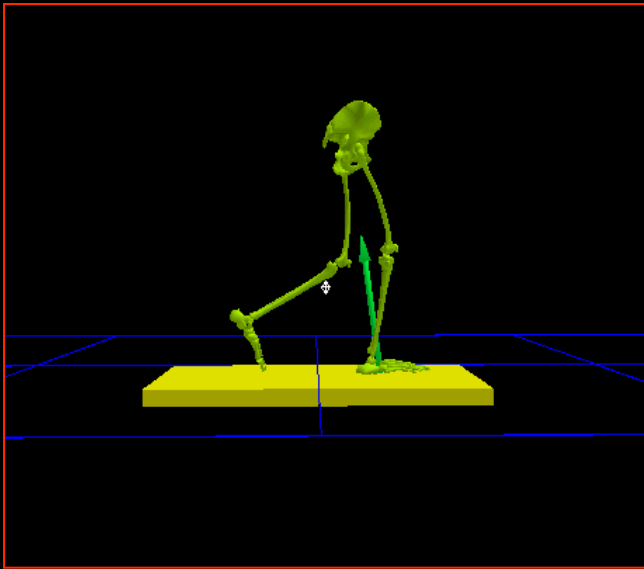


# CINETIQUE DE CHEVILLE

## Plan sagittal

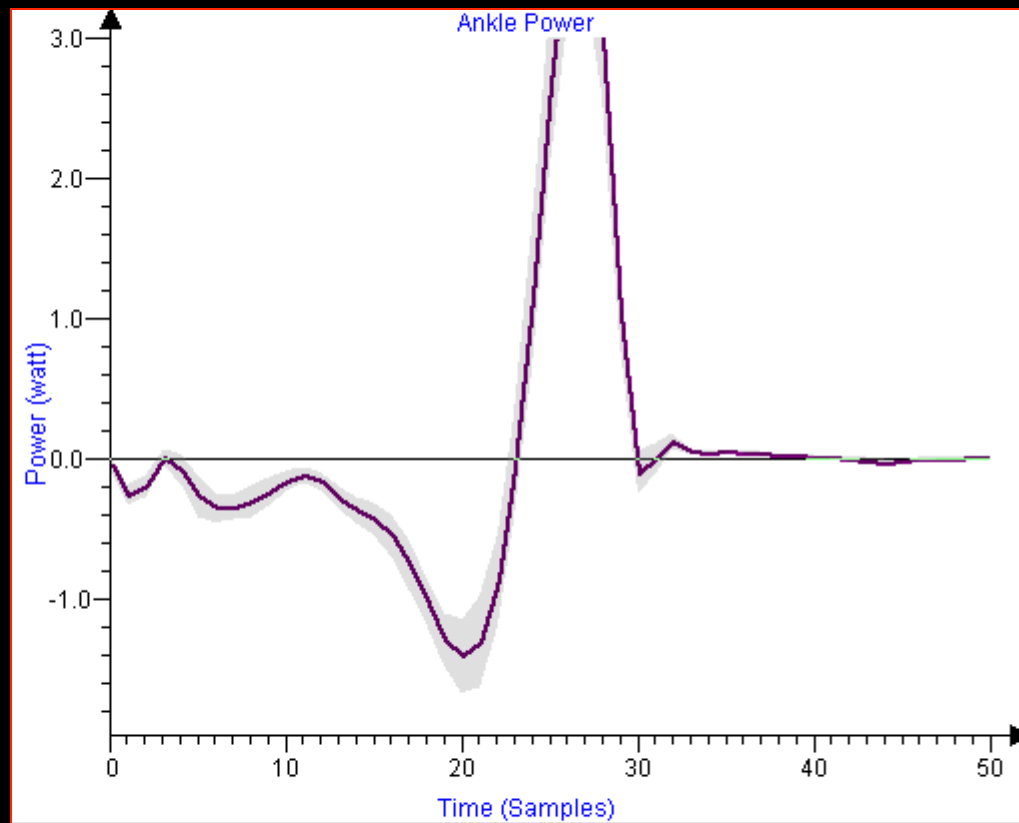




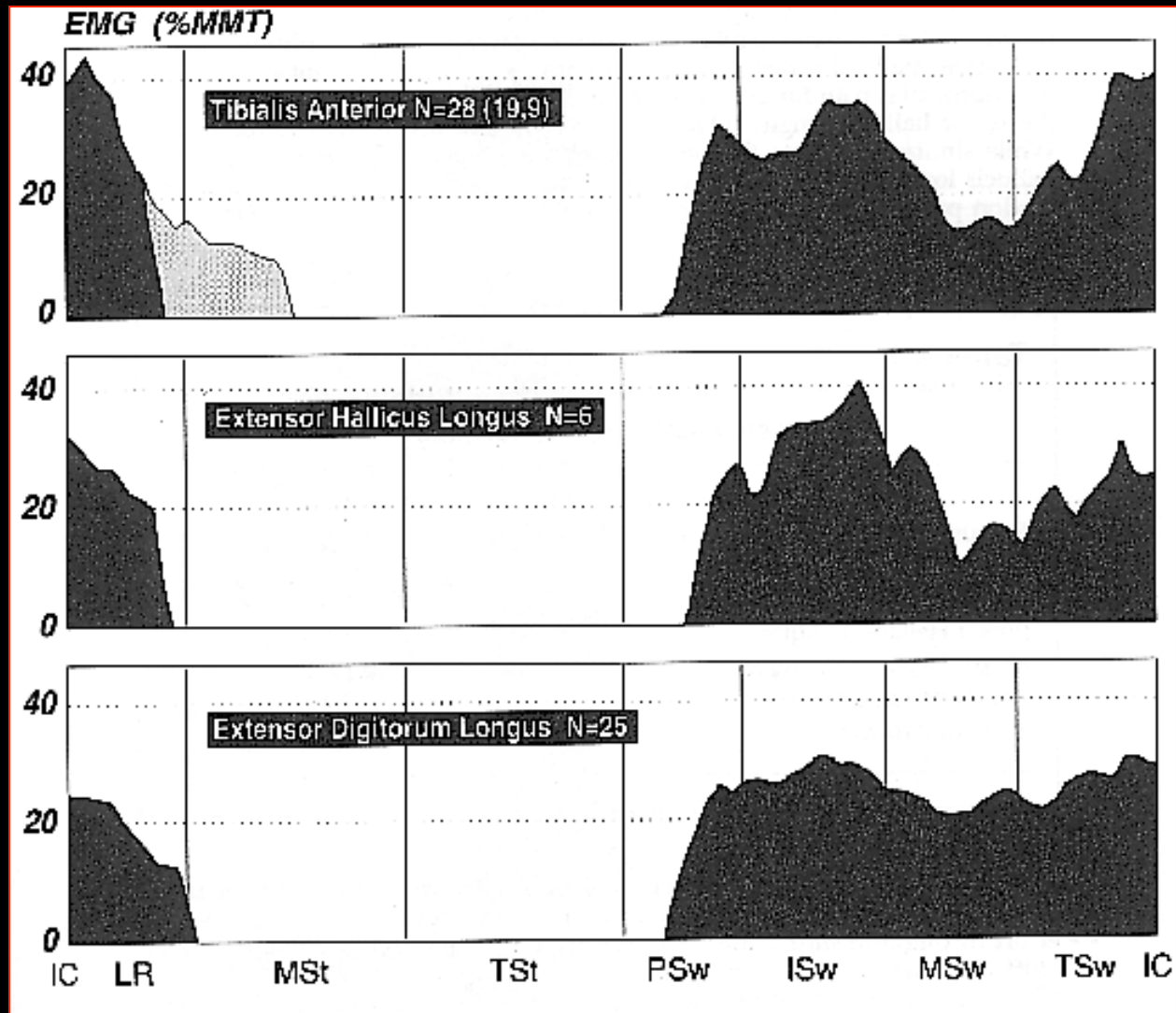


# PUISSANCE DE CHEVILLE

$F \times L \times$  Vitesse angulaire



# Muscles releveurs du pied

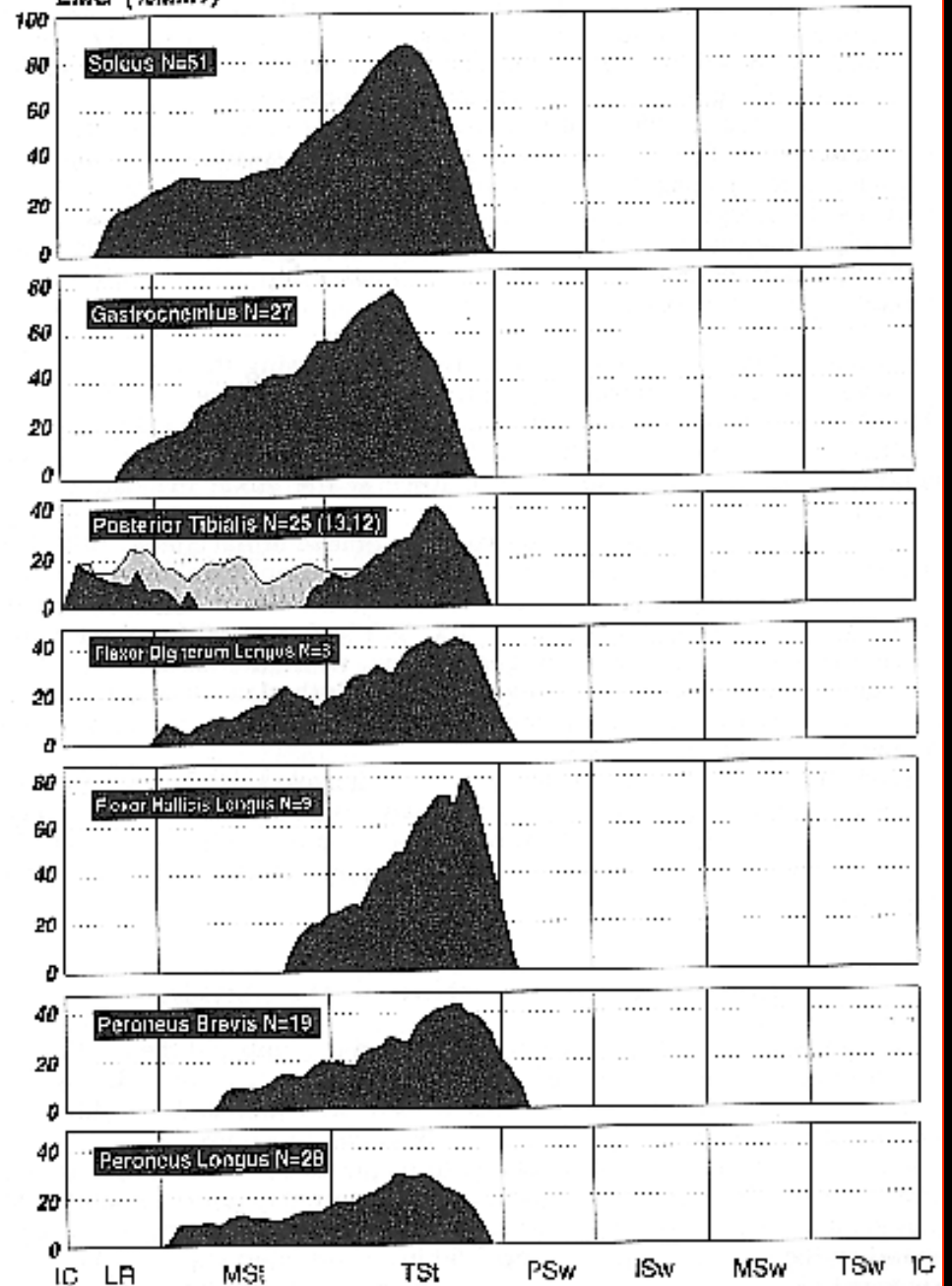




# Muscles fléchisseurs de cheville

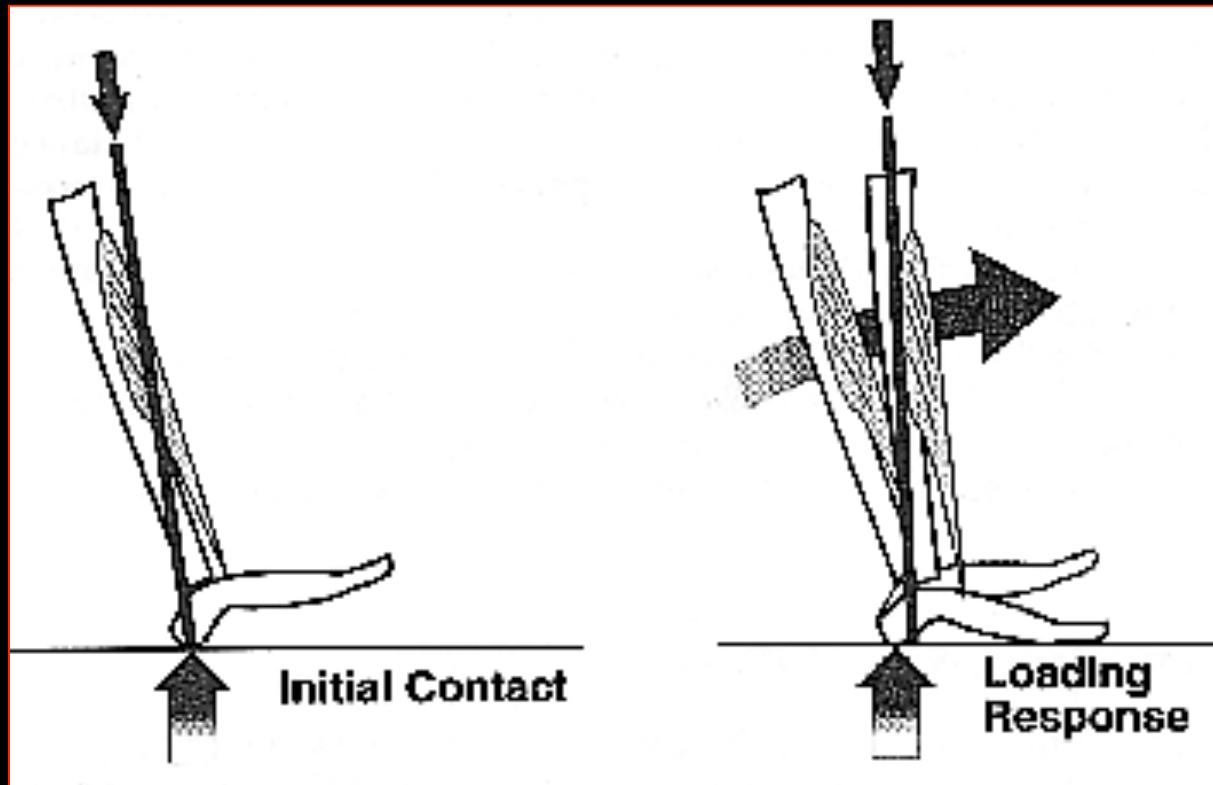
## Ankle Plantar Flexor Muscles

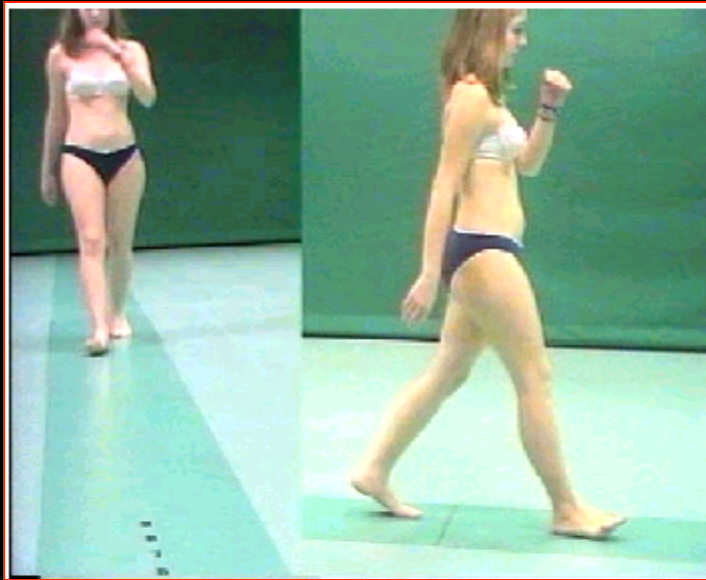
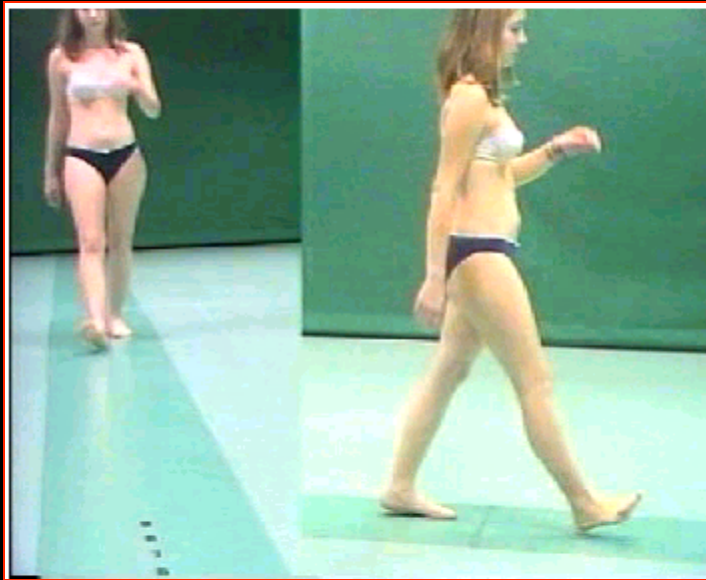
EMG (%MMT)



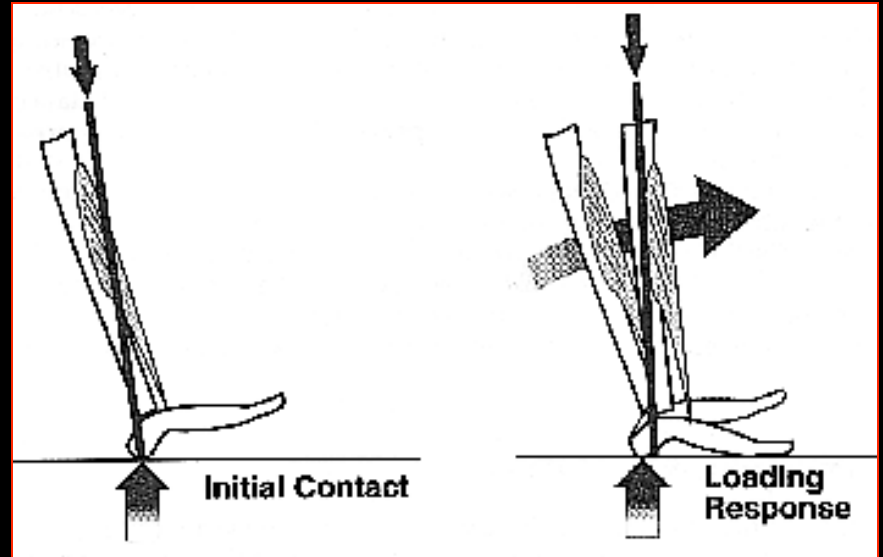
# Interprétation fonctionnelle cheville

**Contact initial**  
**Mise en appui**





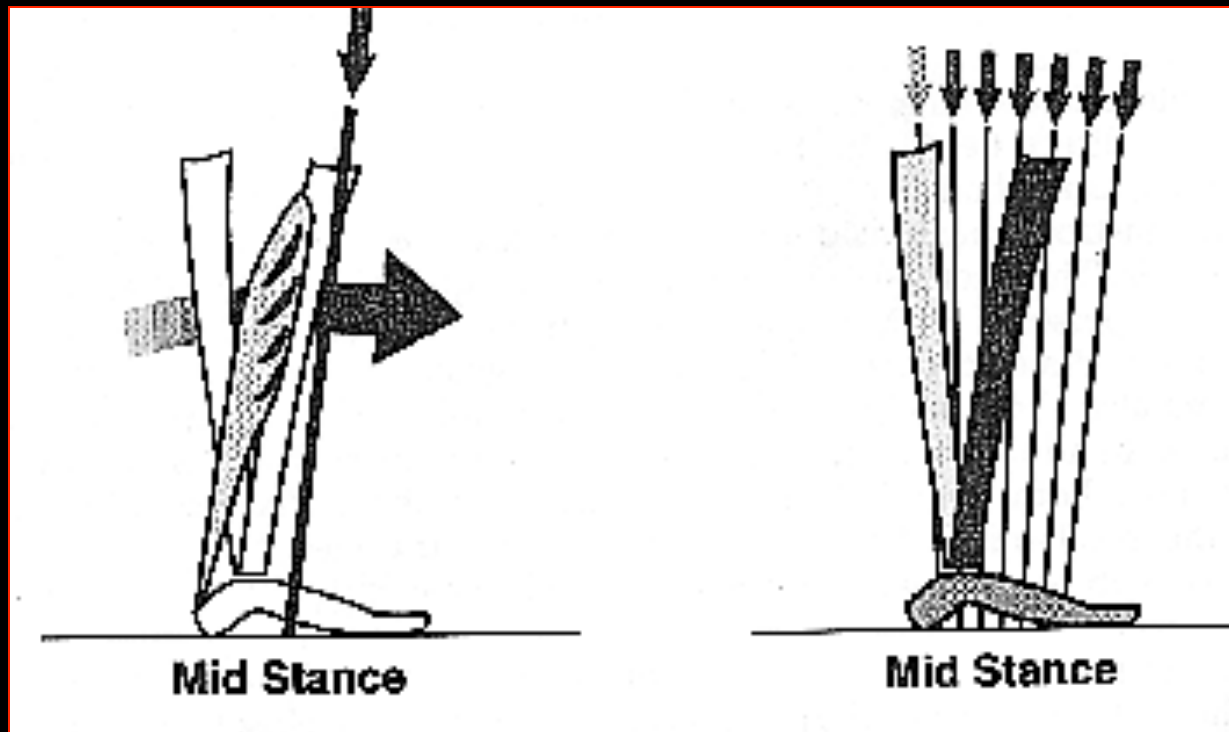
## Contact initial



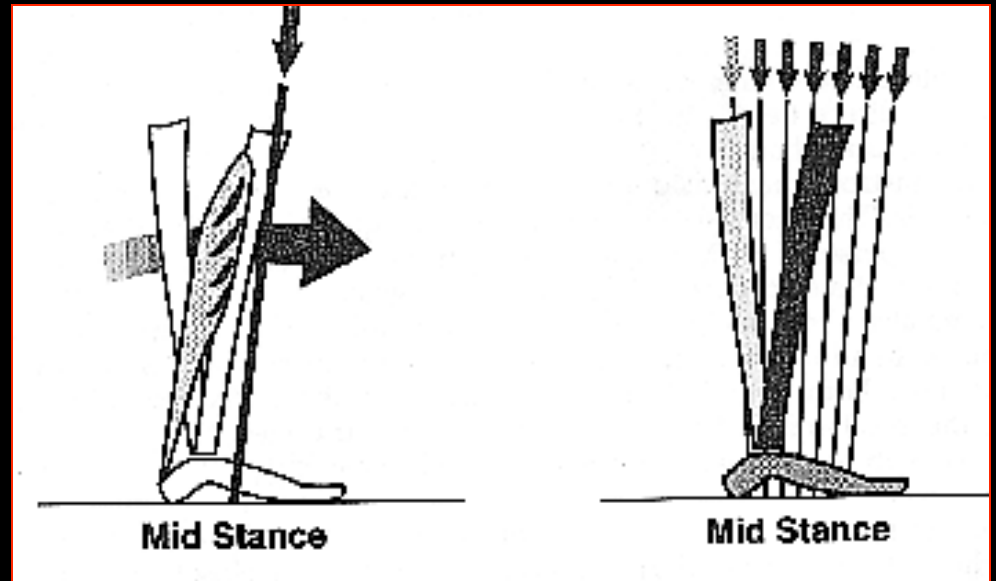
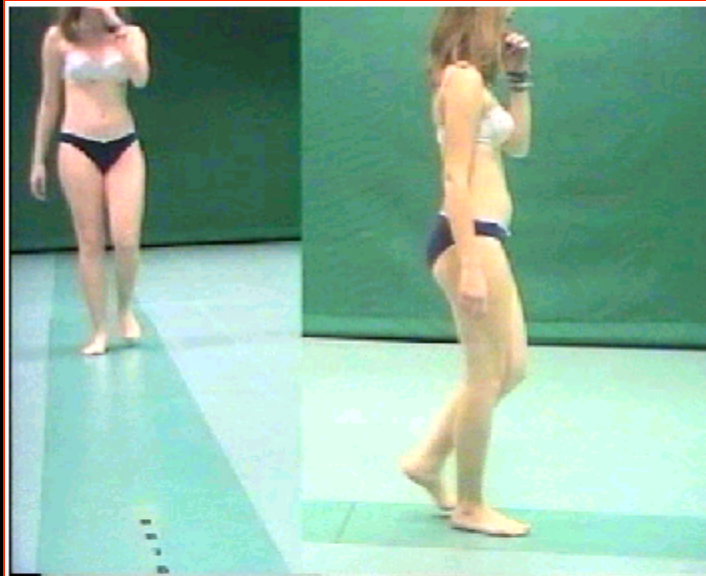
## Mise en appui

# Interprétation fonctionnelle cheville

## Milieu d'appui

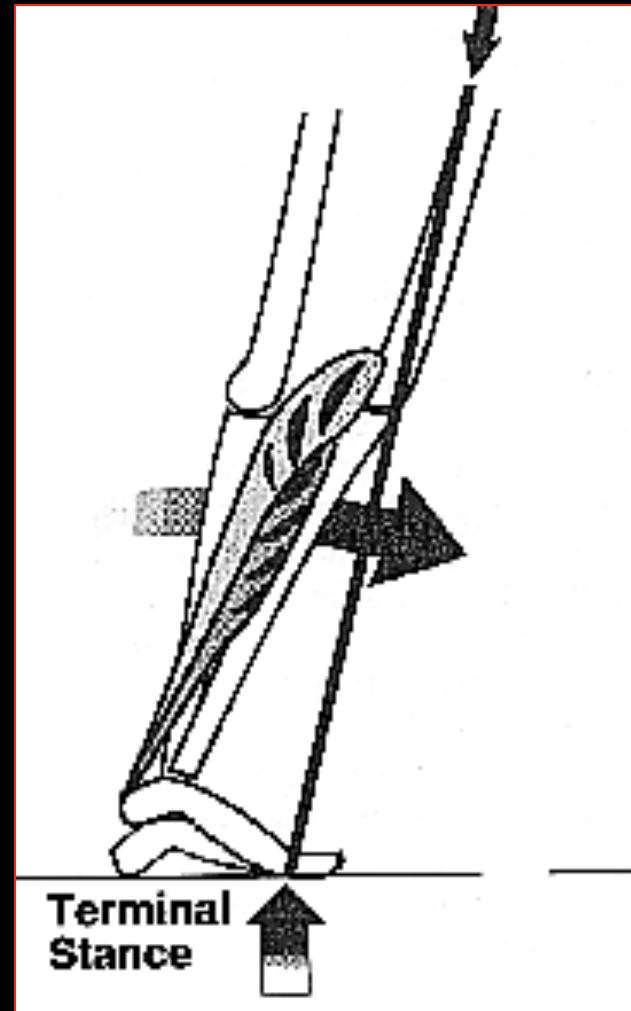


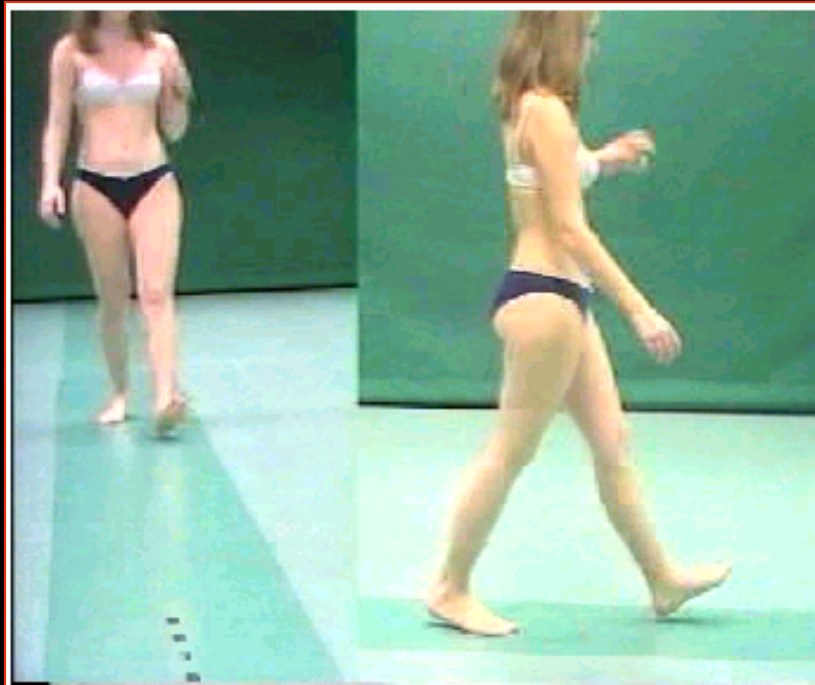
# Milieu d'appui



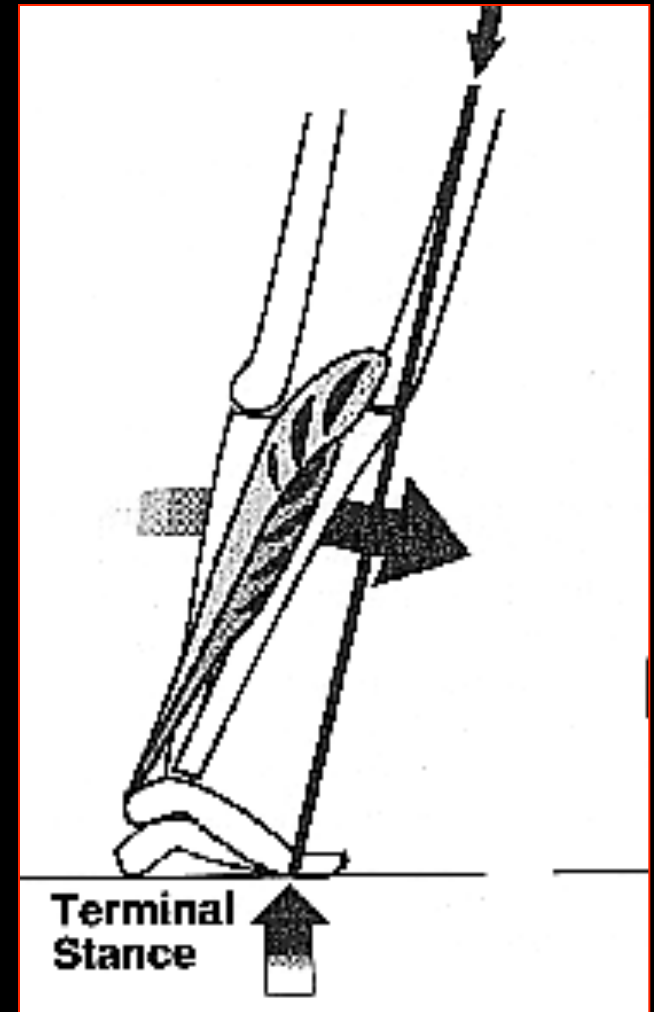
# Interprétation fonctionnelle cheville

**Fin d'appui**



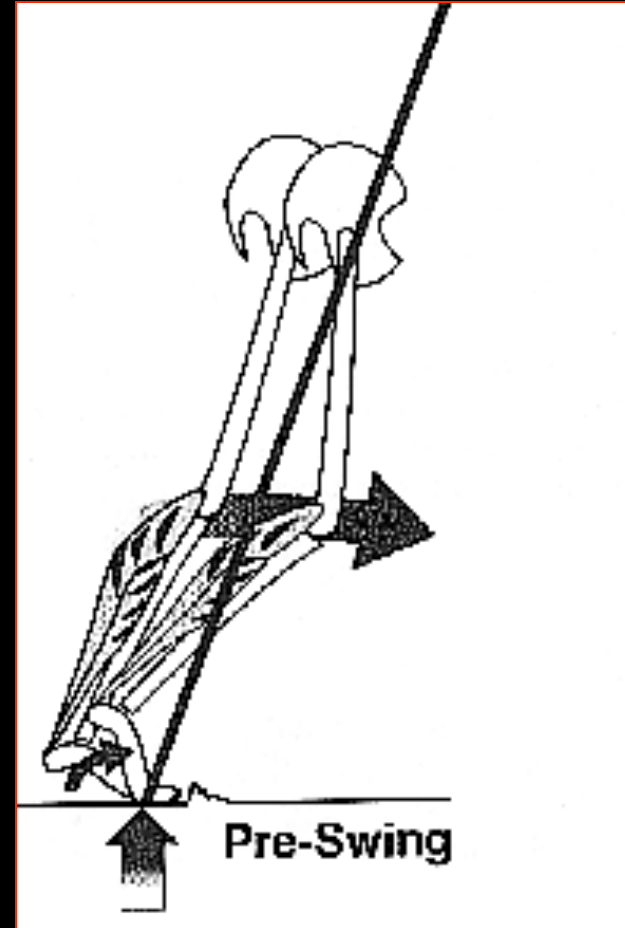


**Fin d' appui**



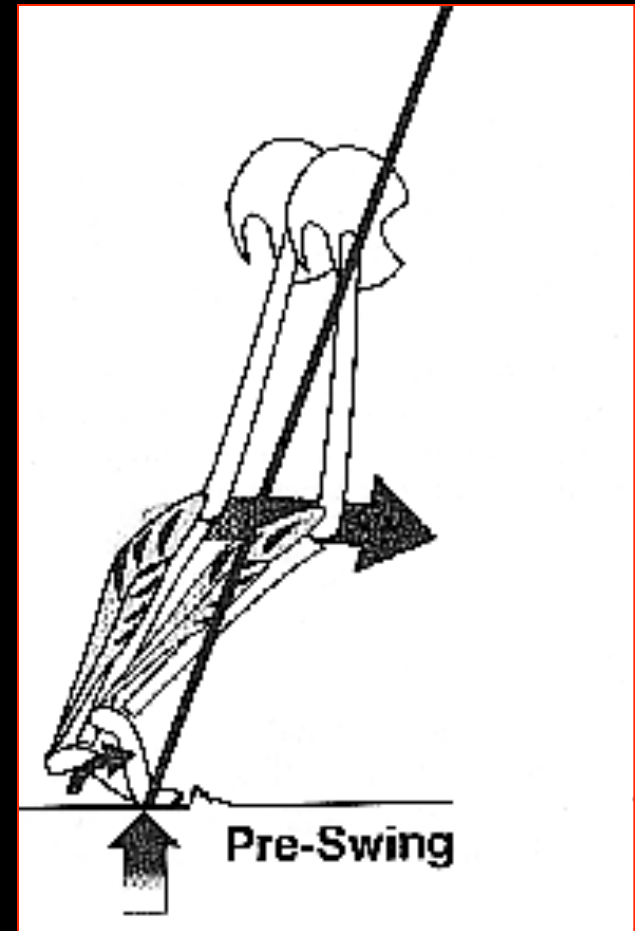
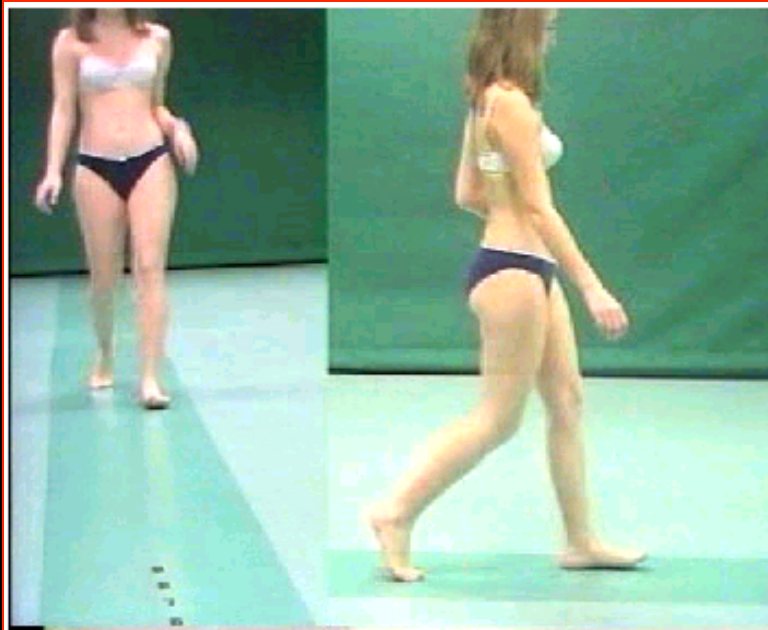
# Interprétation fonctionnelle cheville

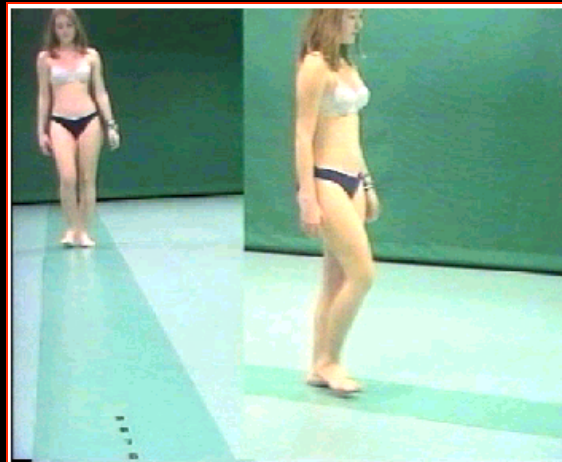
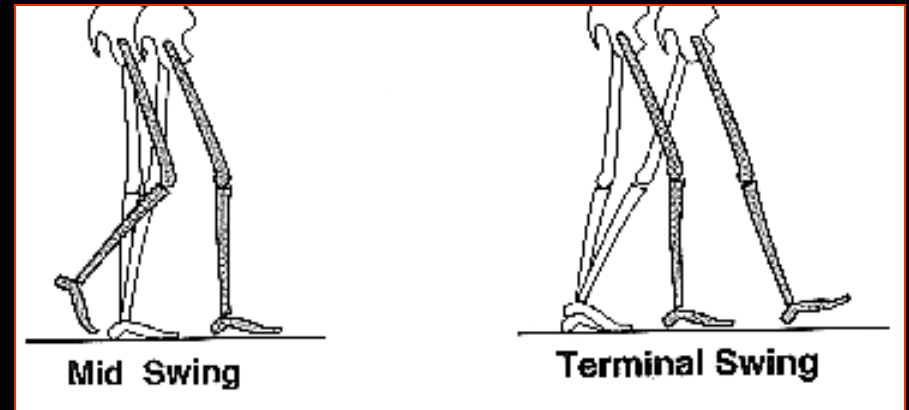
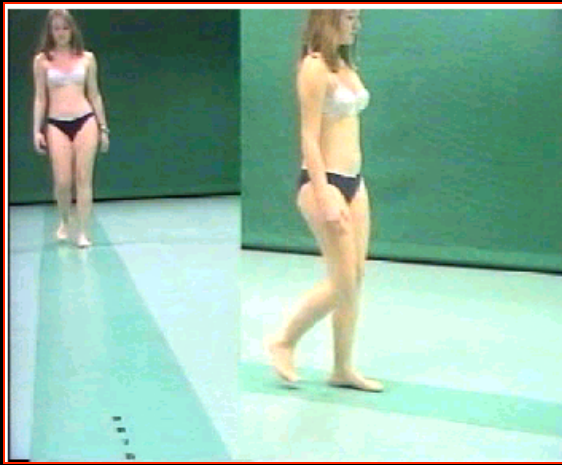
## Phase pré oscillante





# Phase pré oscillante

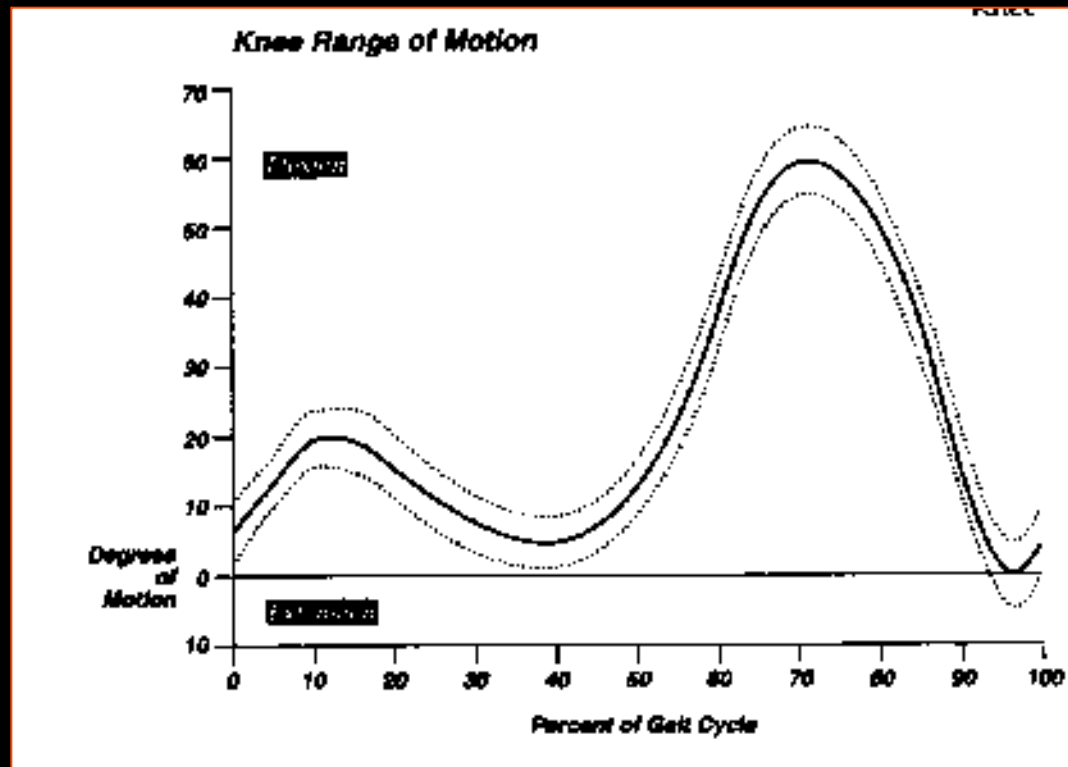




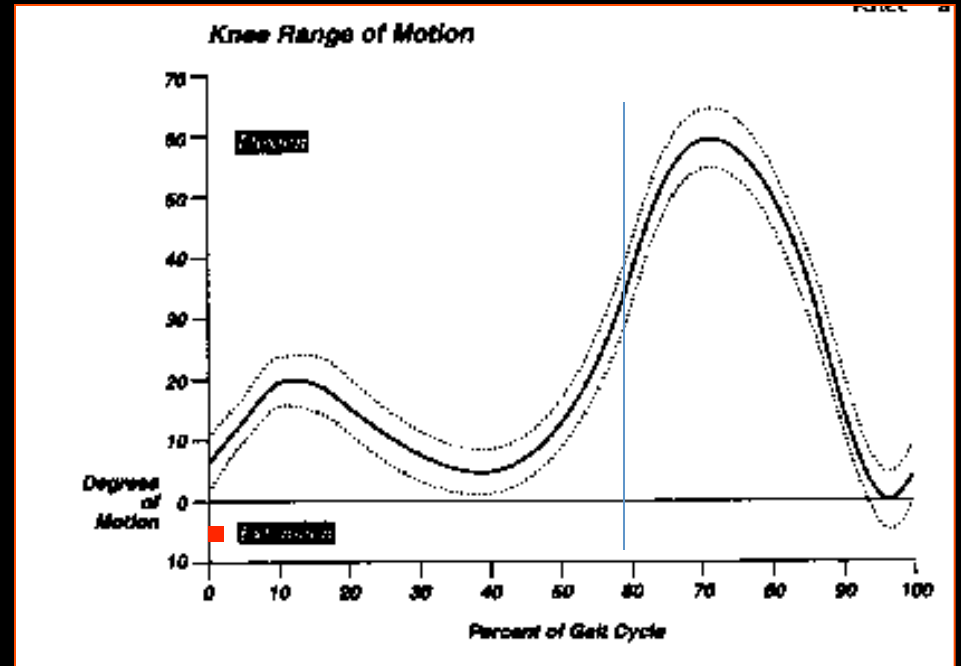
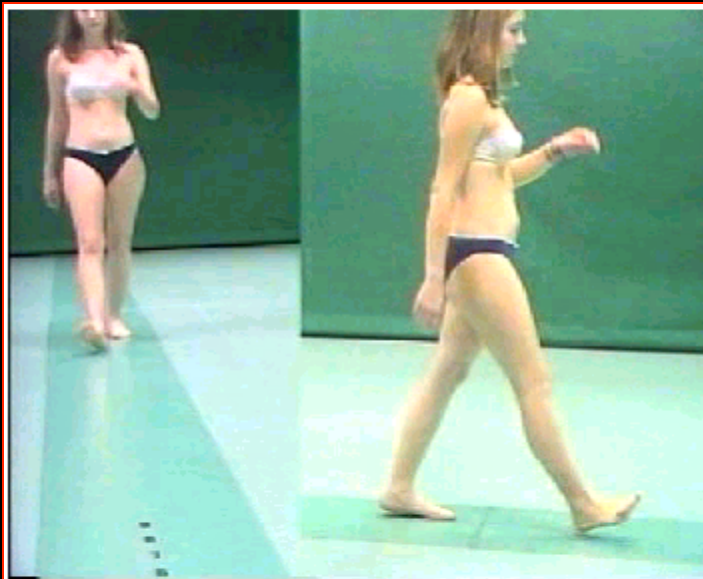
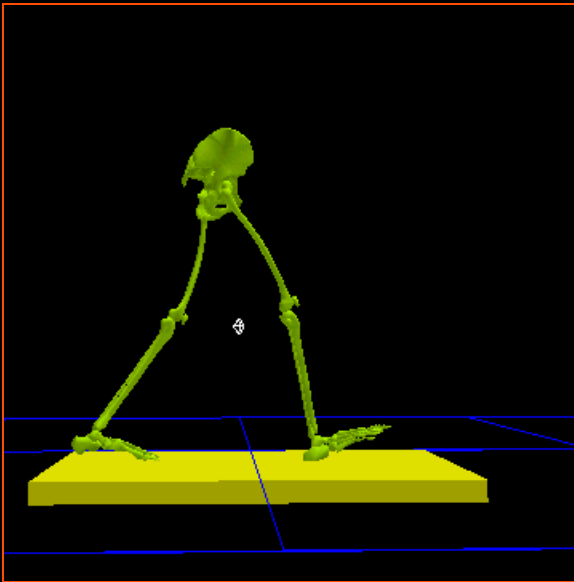
**Phase oscillante**

# **LE GENOU NORMAL**

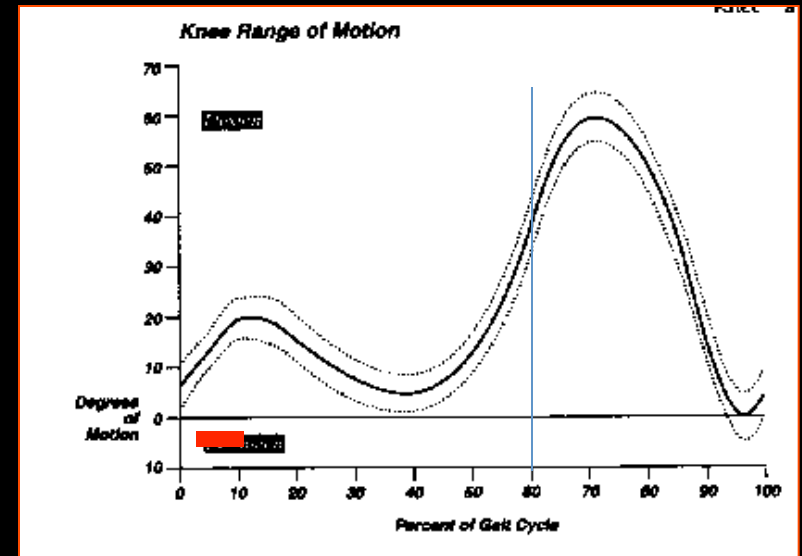
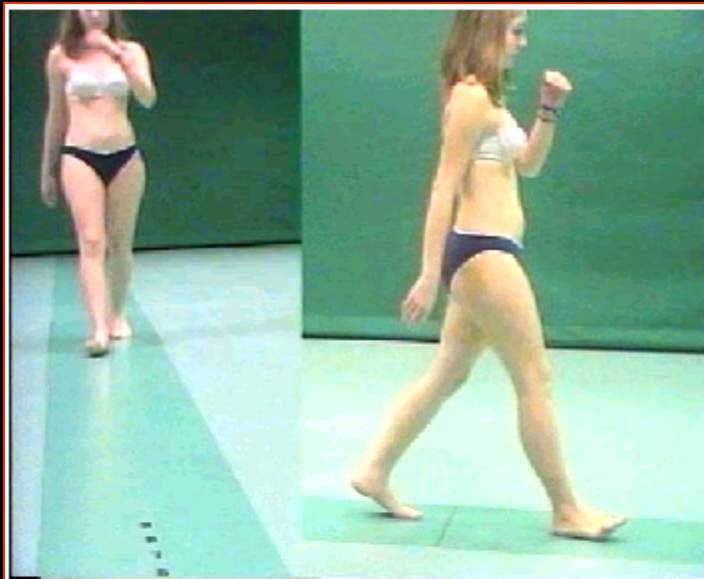
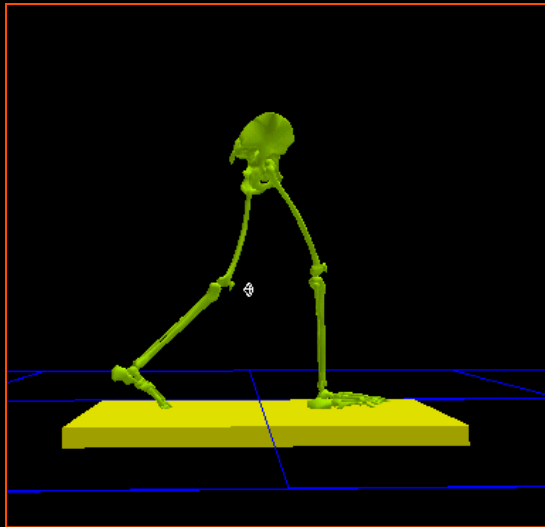
# CINEMATIQUE DU GENOU



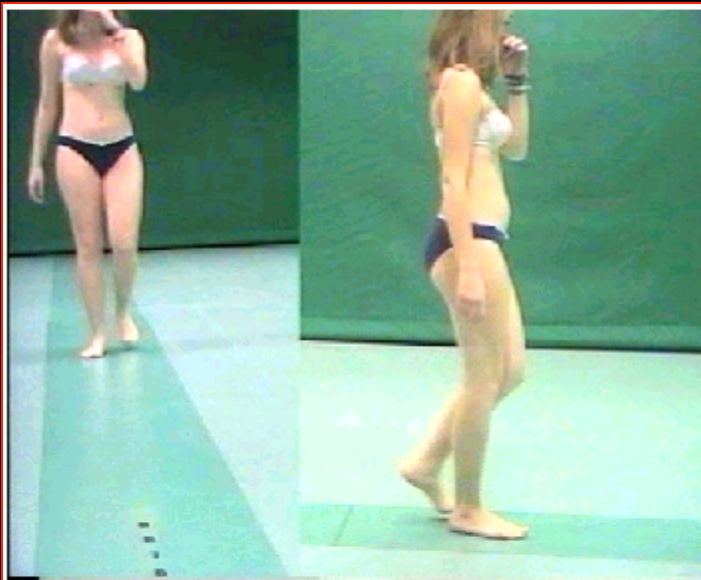
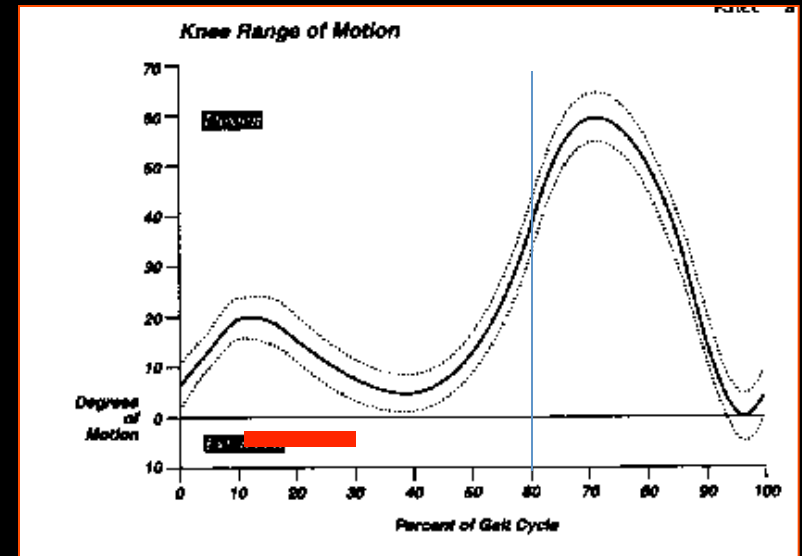
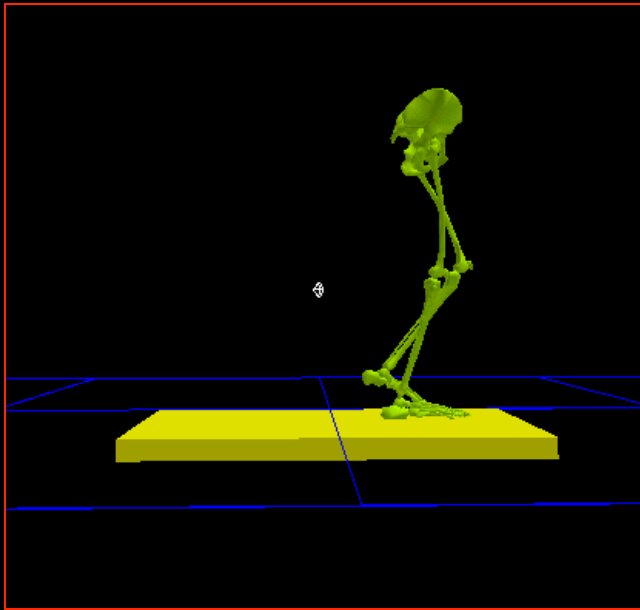
# CONTACT INITIAL



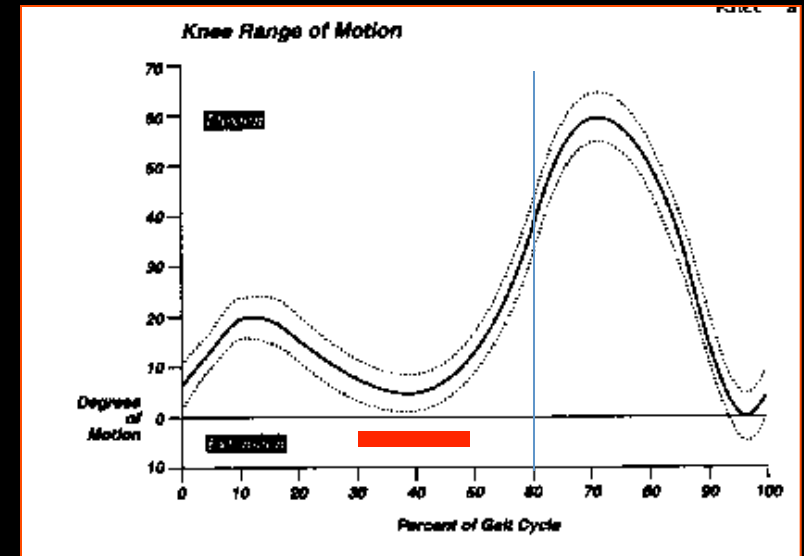
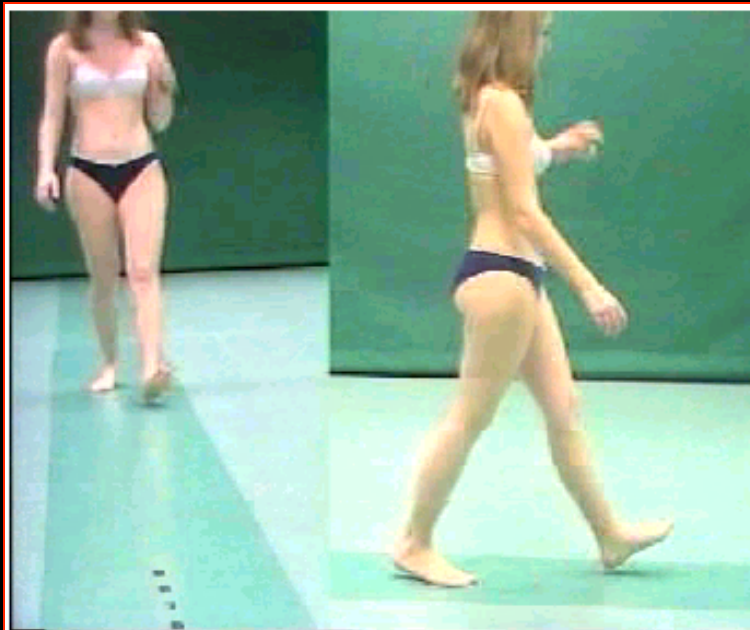
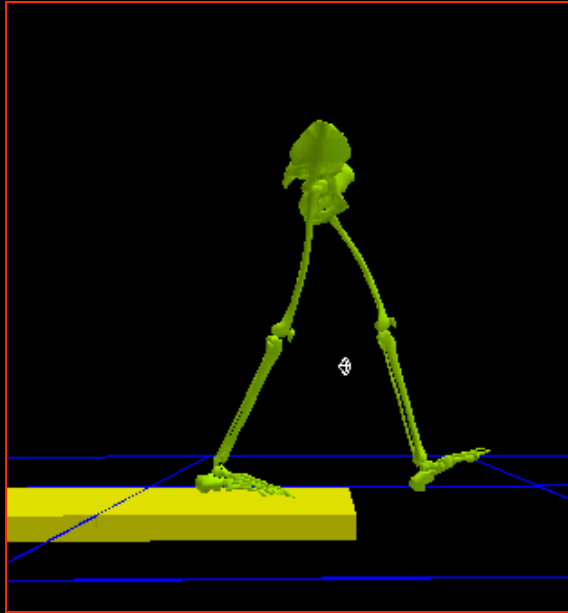
# MISE EN APPUI



# MILIEU D' APPUI

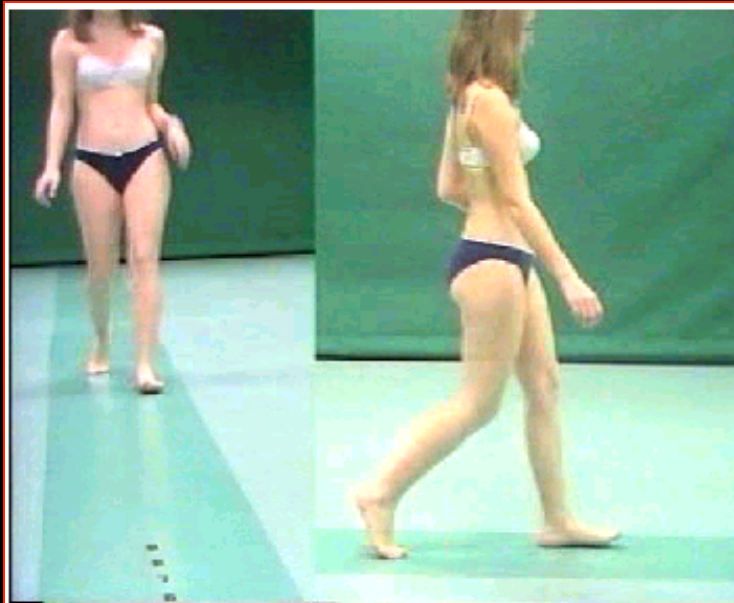
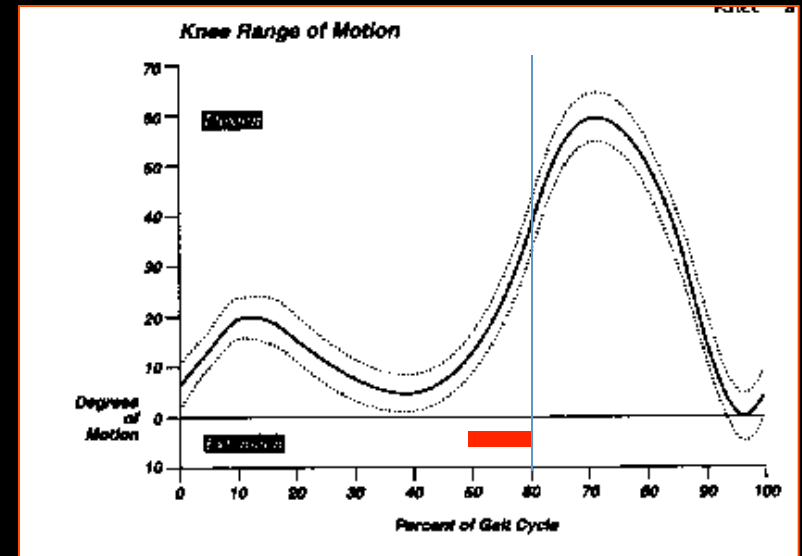
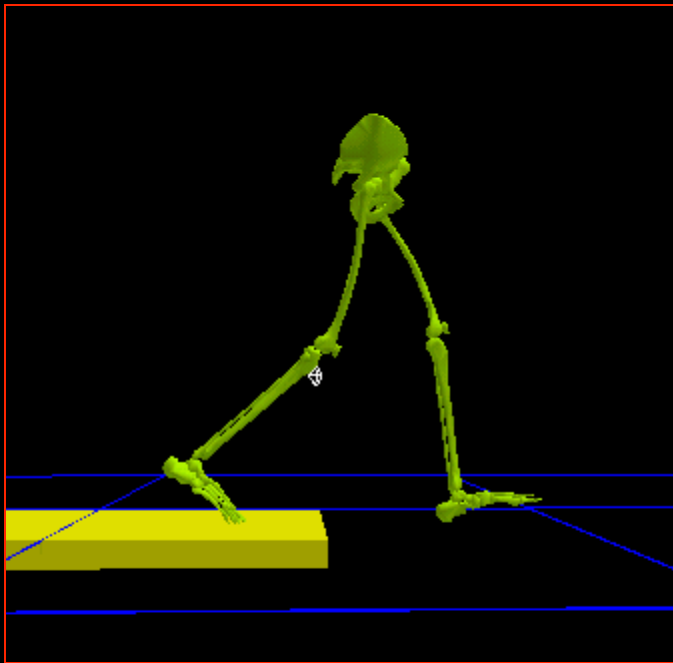


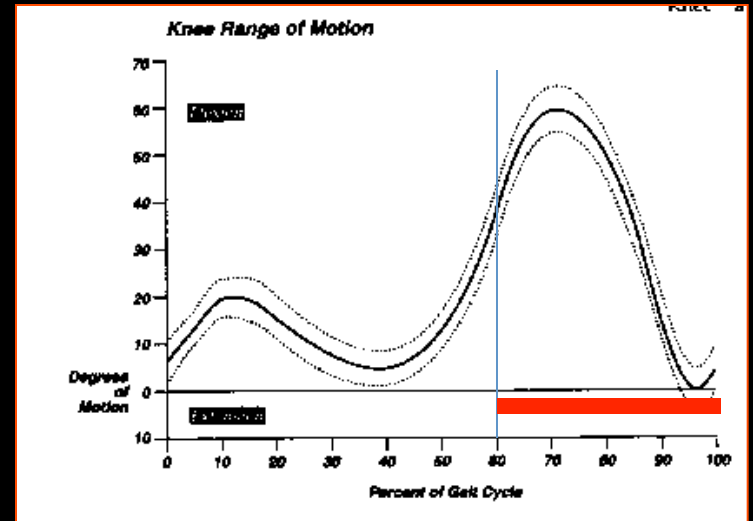
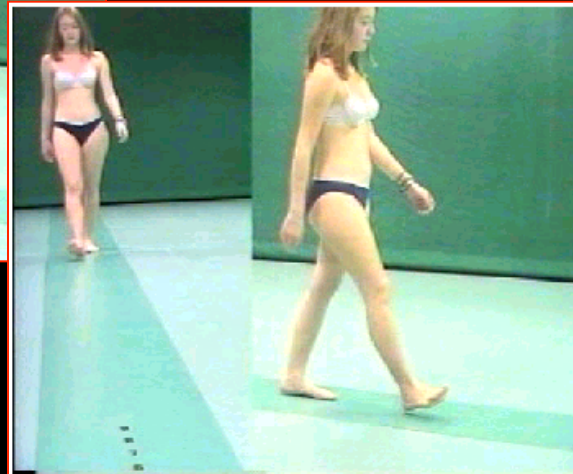
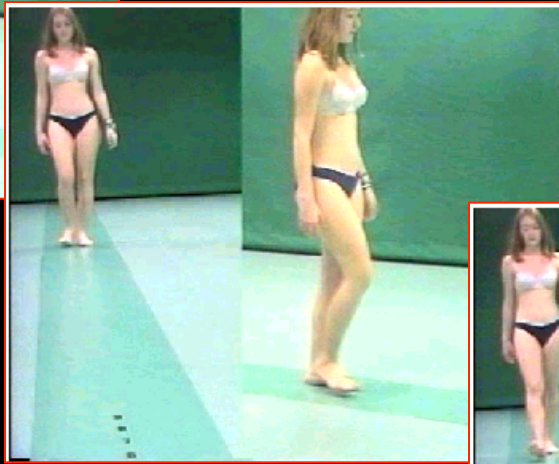
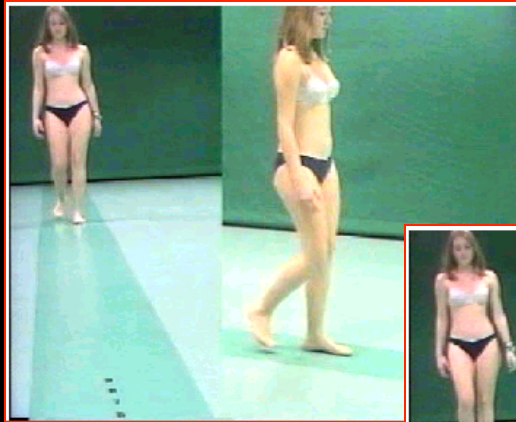
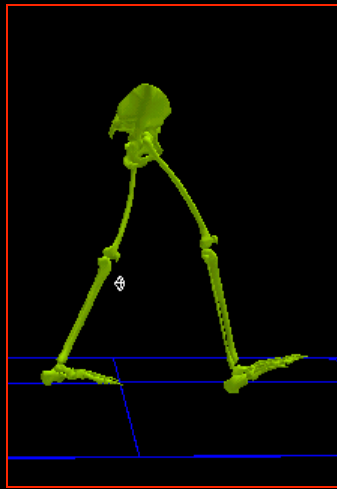
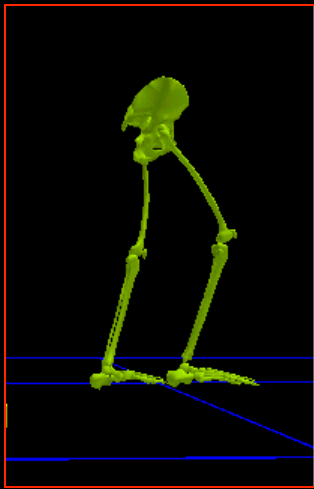
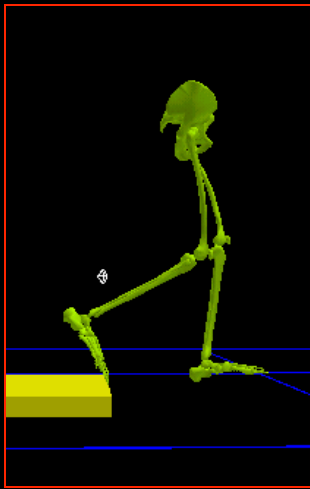
# FIN D' APPUI

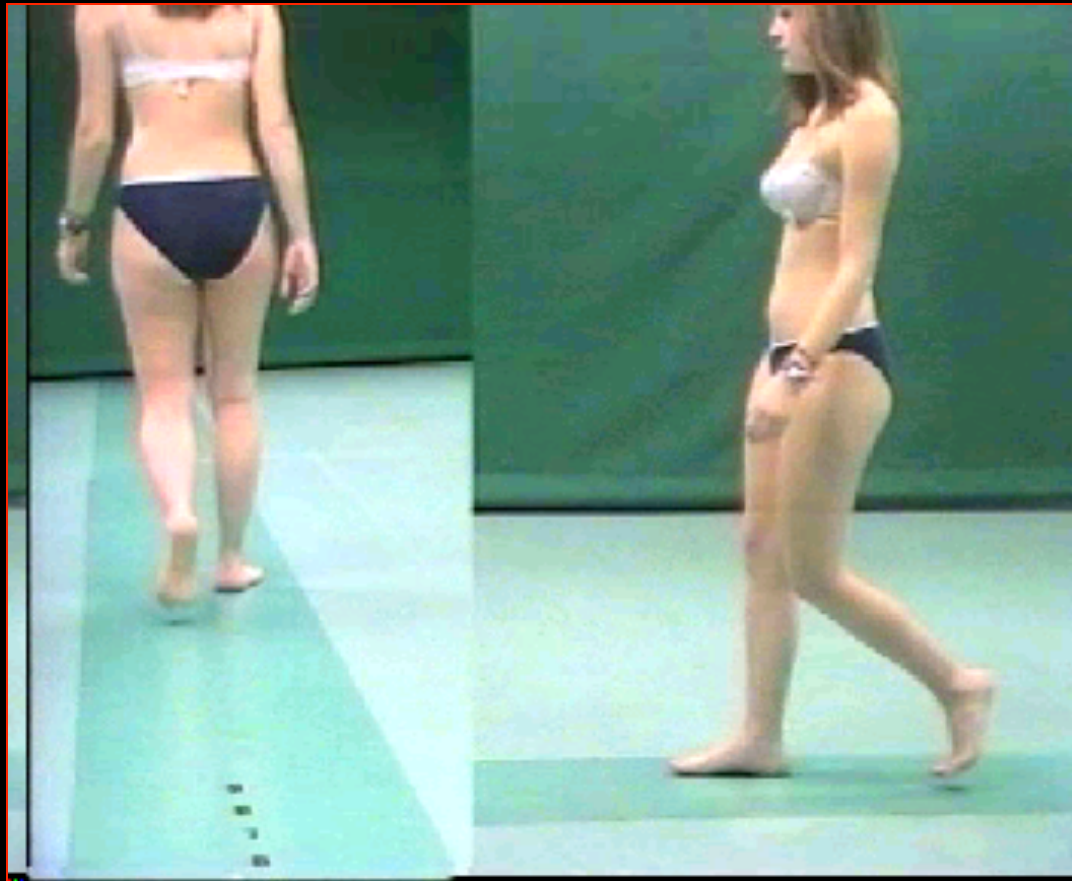




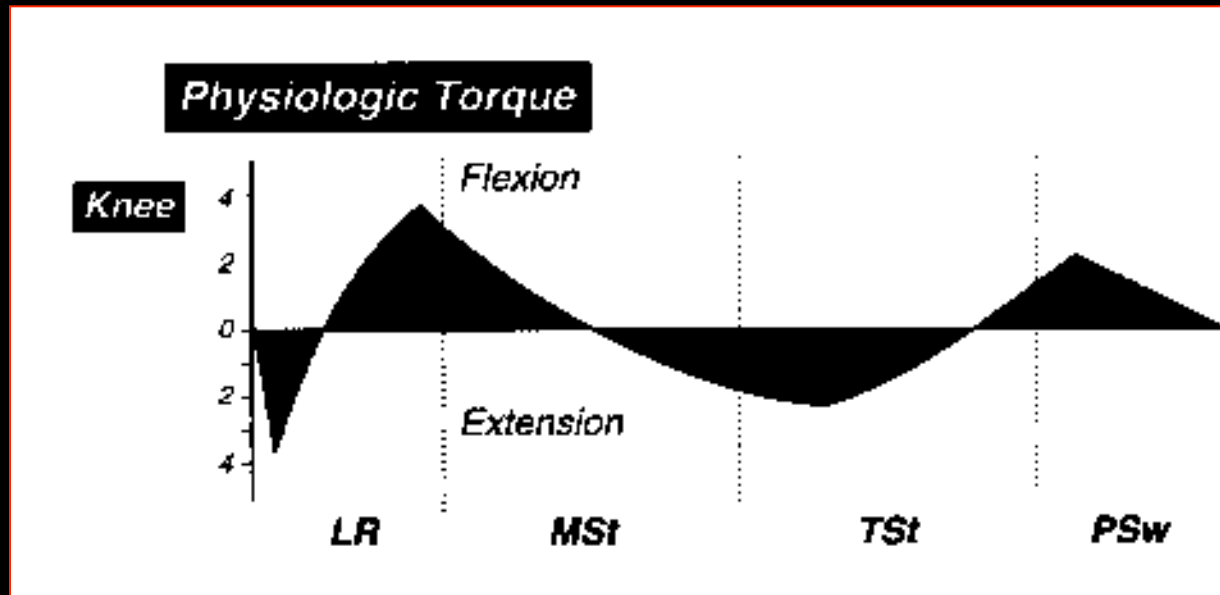
# PHASE PRE OSCILLANTE



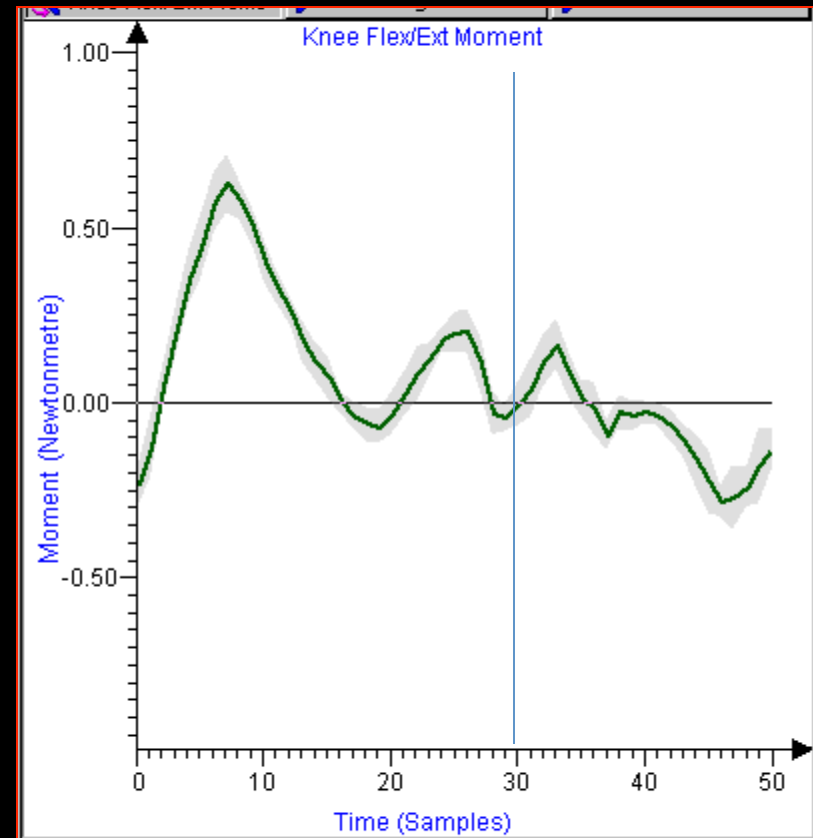
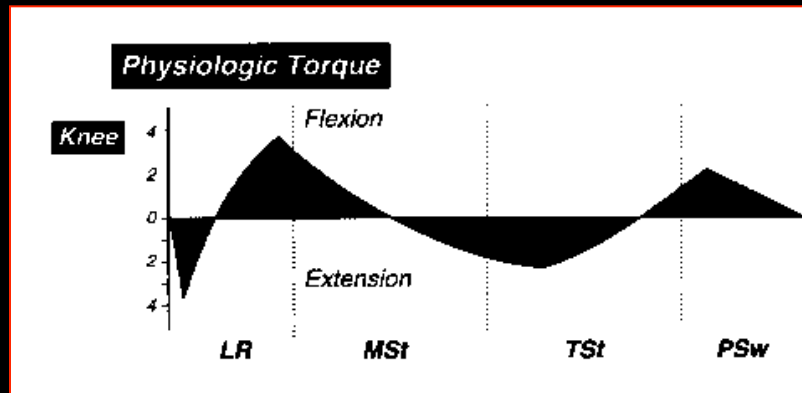




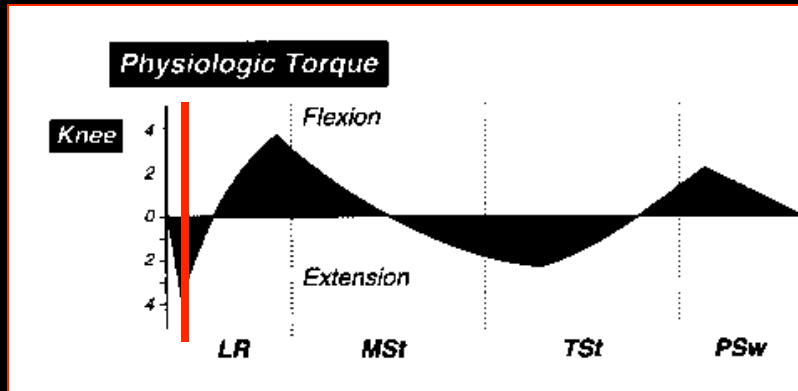
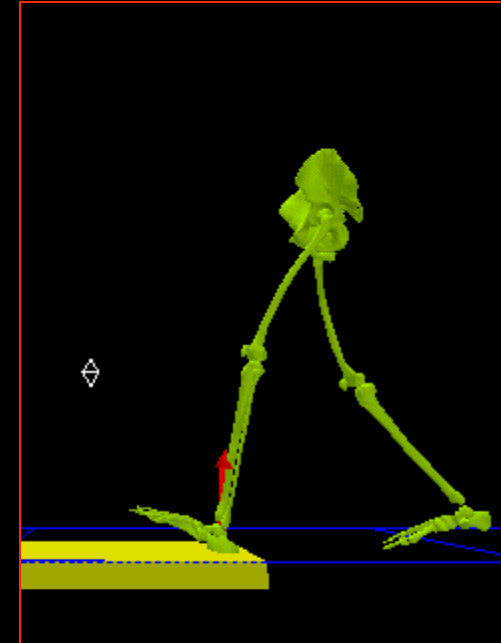
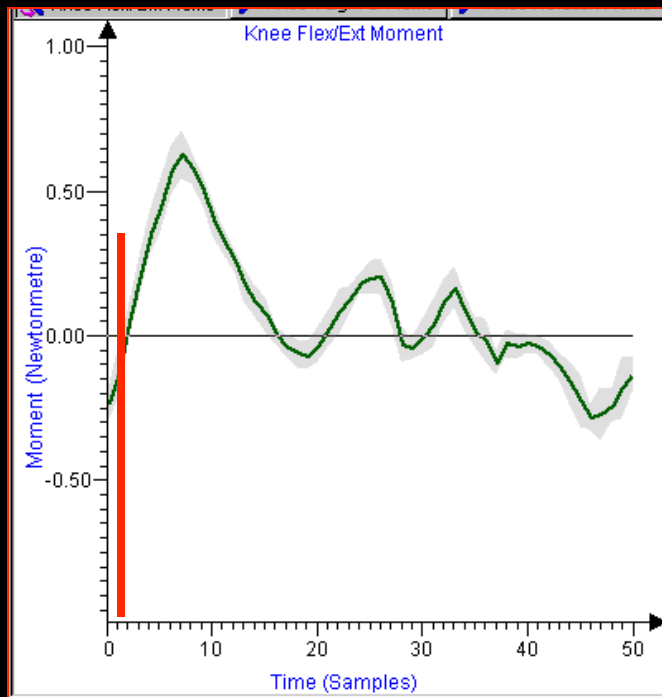
# CINETIQUE DU GENOU



# CINETIQUE DU GENOU

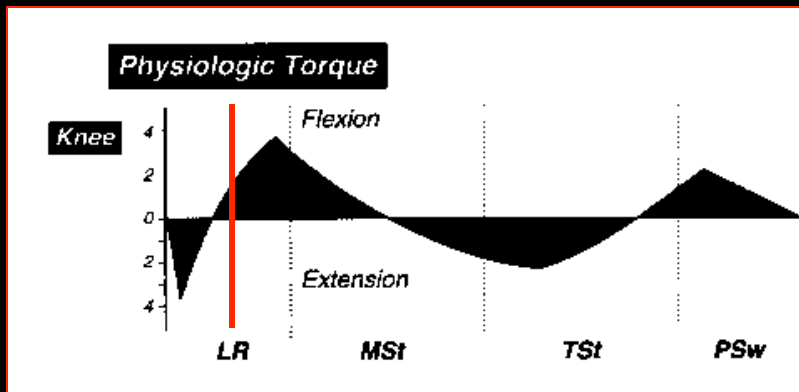
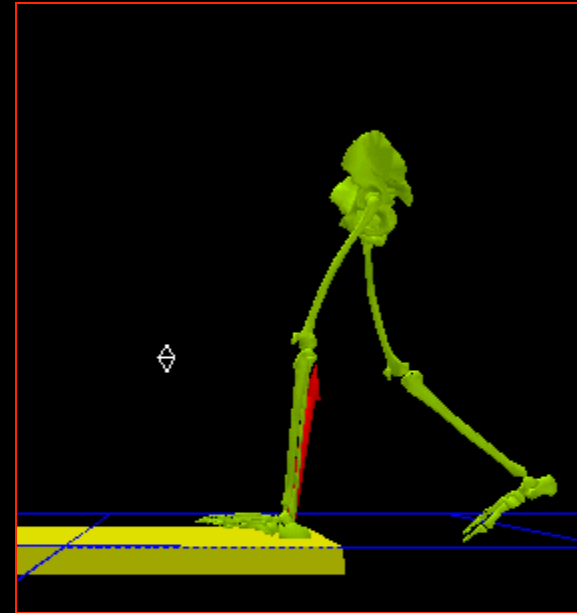
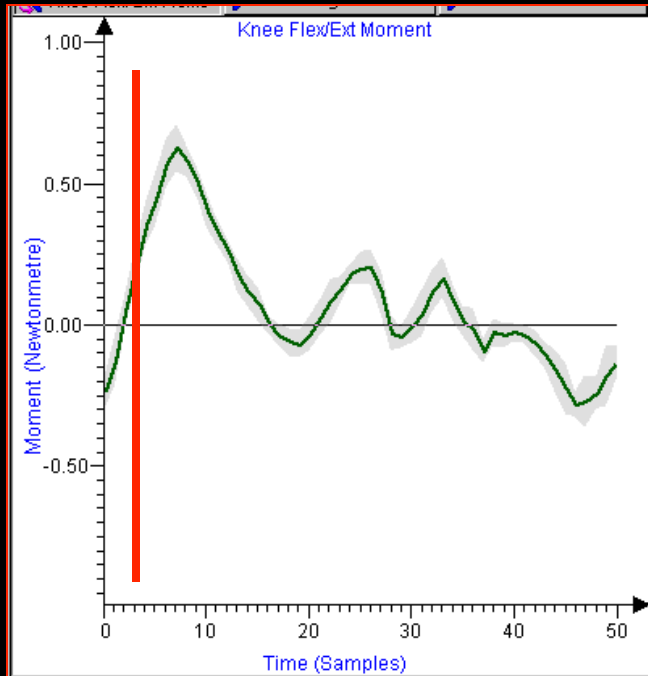


# CINETIQUE DU GENOU



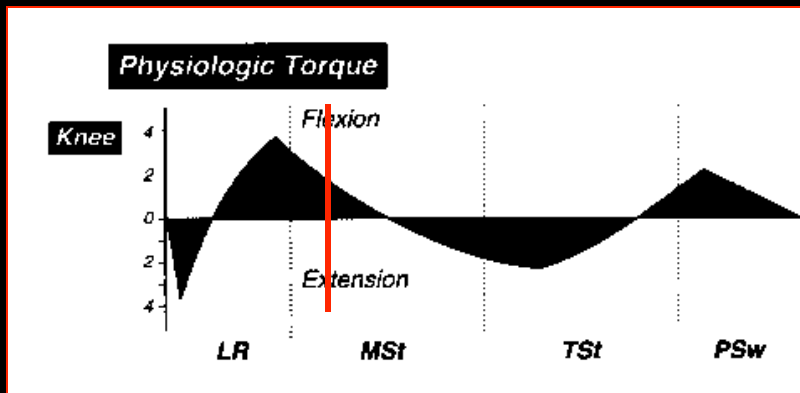
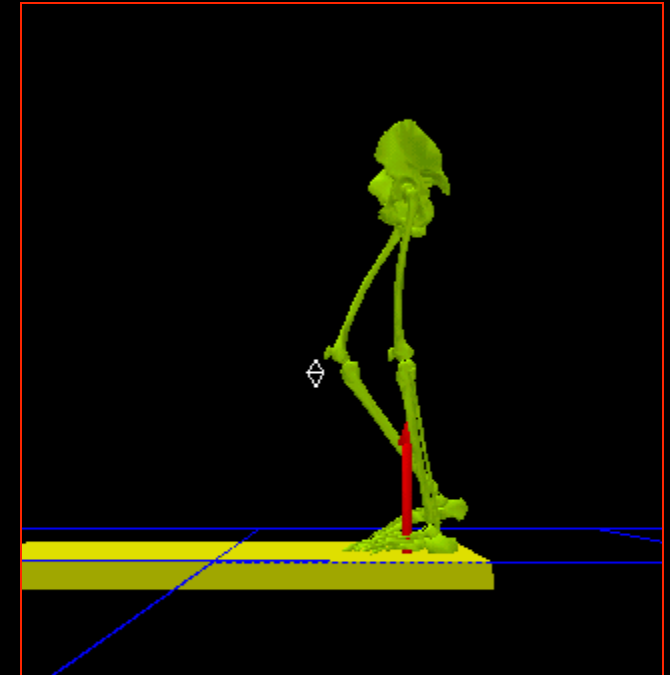
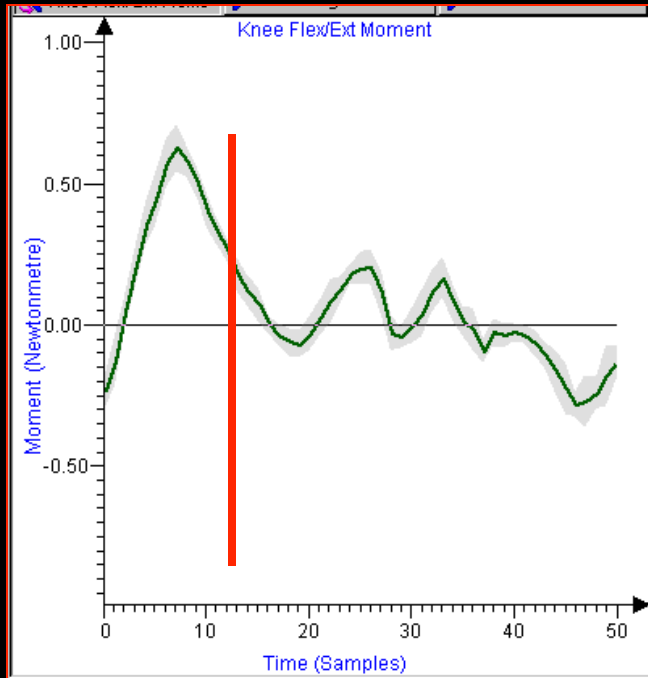
**CONTACT INITIAL**  
**Vecteur en avant du genou**

# CINETIQUE DU GENOU



**MISE EN APPUI**  
**Vecteur en arrière du genou**

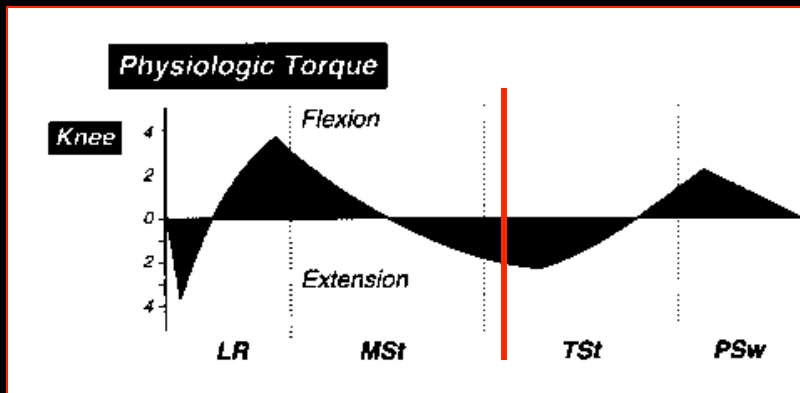
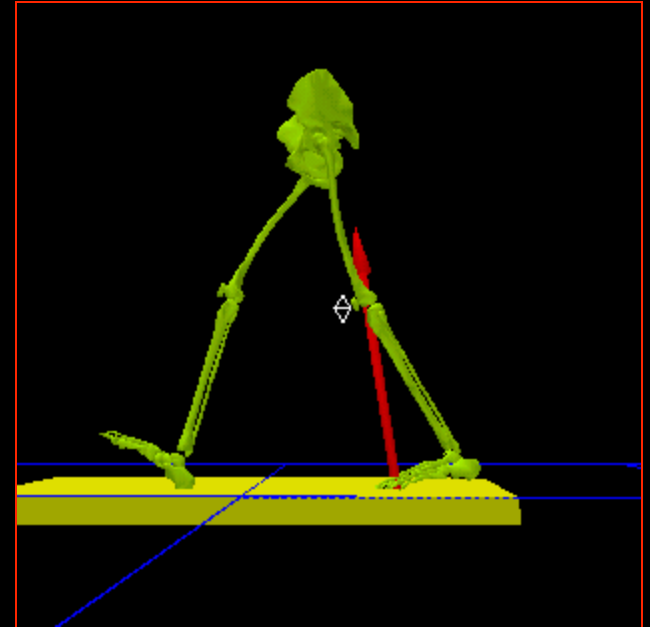
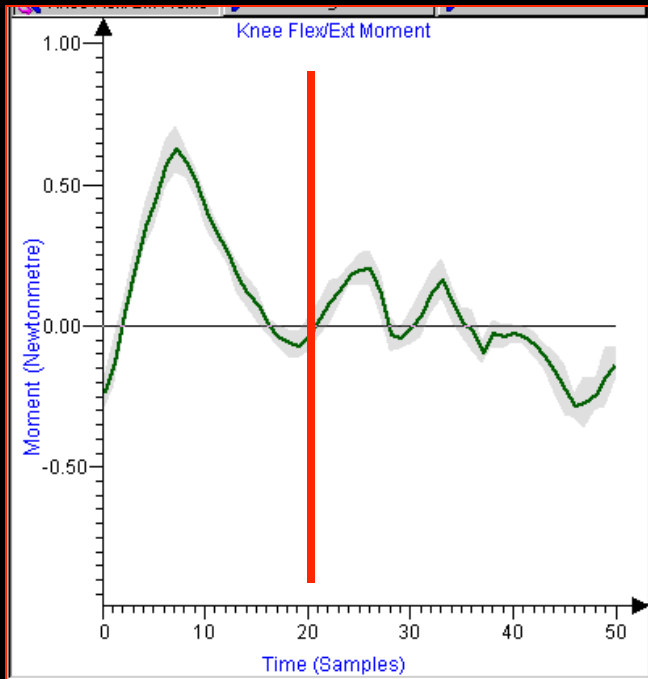
# CINETIQUE DU GENOU



**MILIEU D' APPUI**  
**Vecteur près du genou**

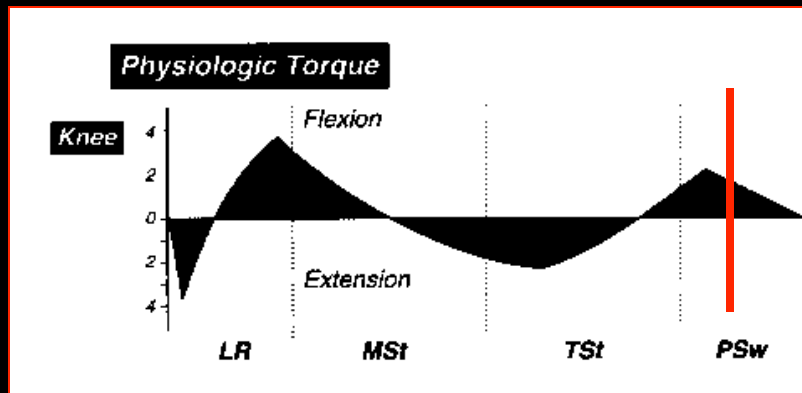
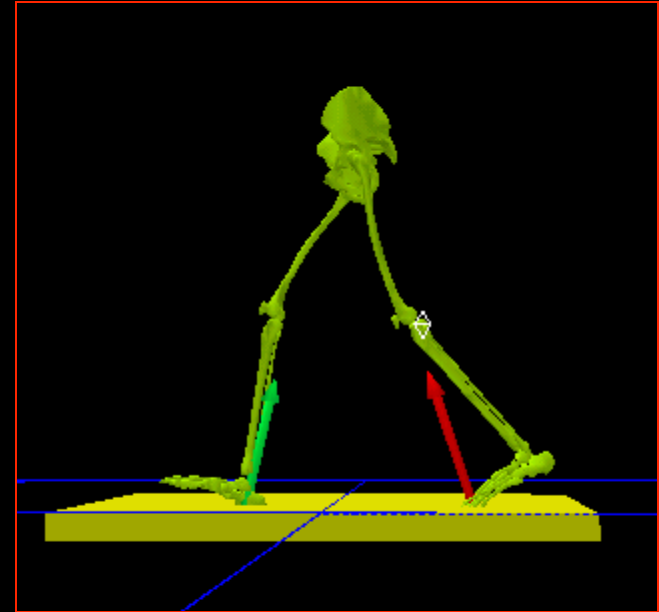
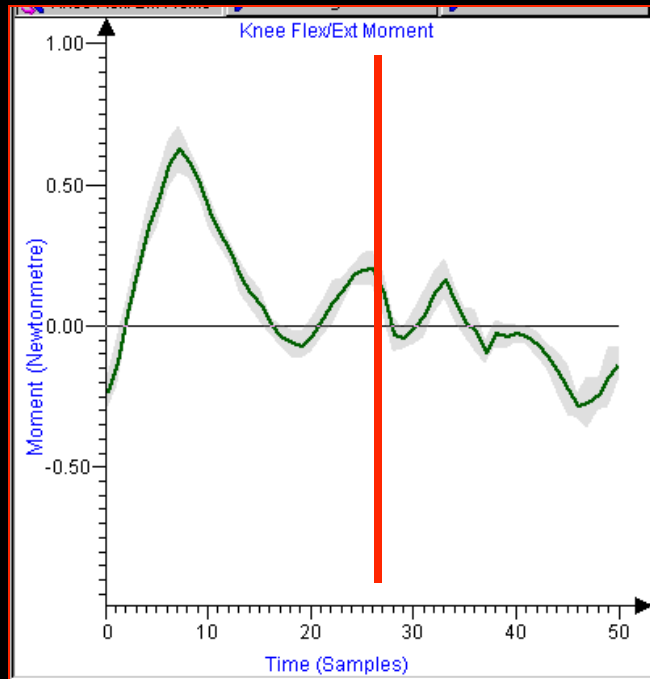


# CINETIQUE DU GENOU



**FIN D' APPUI**  
**Vecteur en avant du genou**

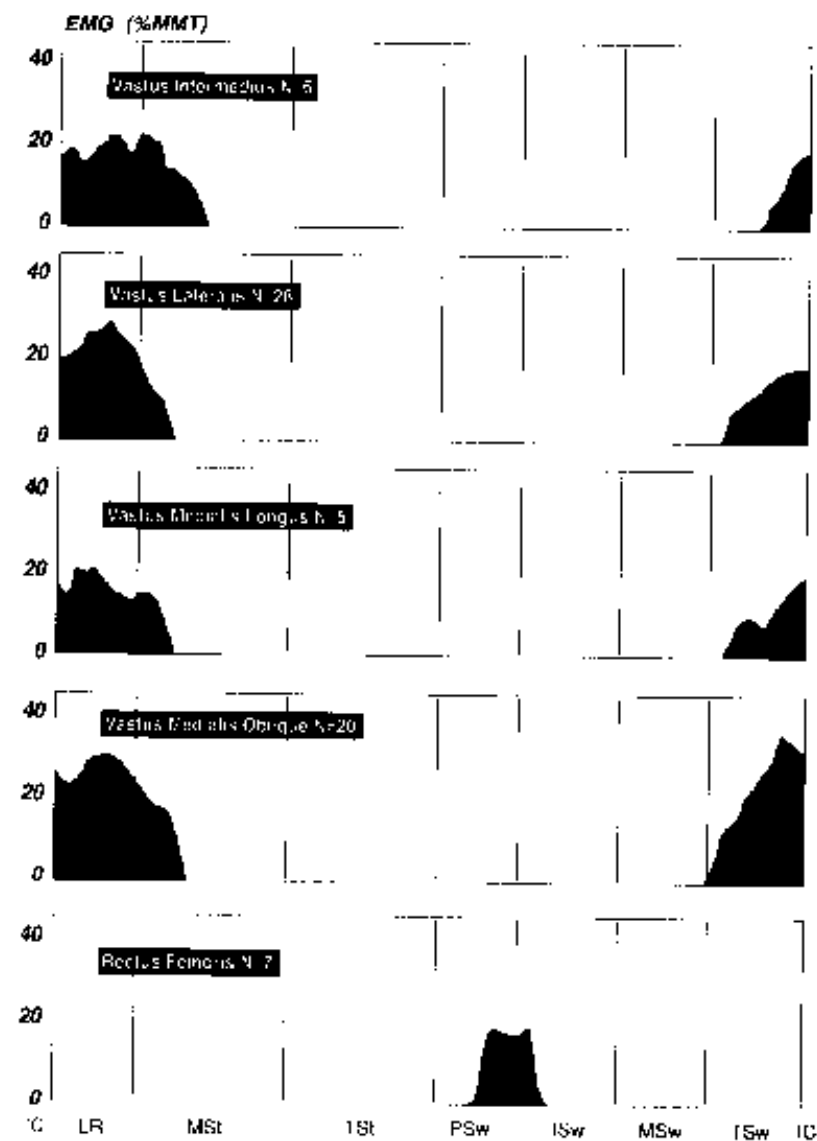
# CINETIQUE DU GENOU



**PHASE PRE OSCILLANTE**  
**Déverrouillage**  
**Vecteur en arrière du genou**

# MUSCLES EXTENSEURS DU GENOU

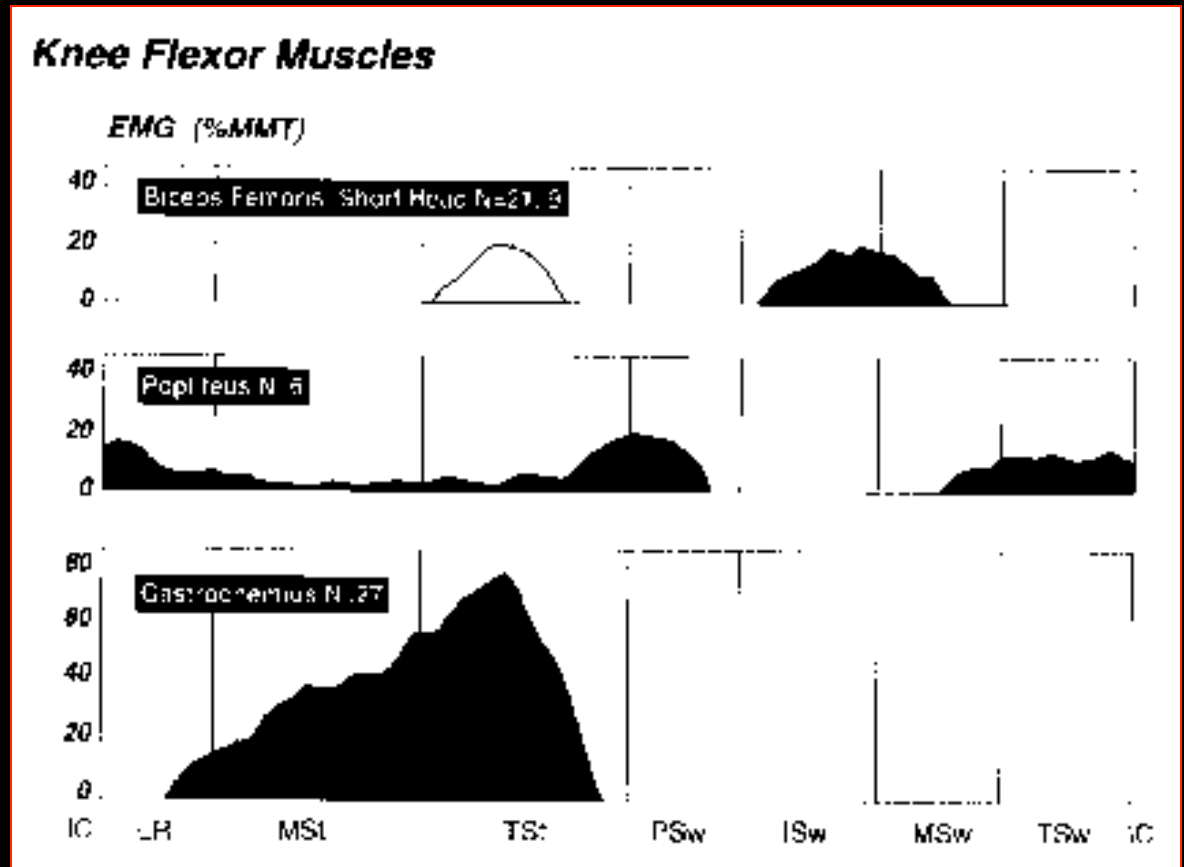
## Knee Extensor Muscles (Vasti)



# MUSCLES

# FLECHISSEURS

# DU GENOU

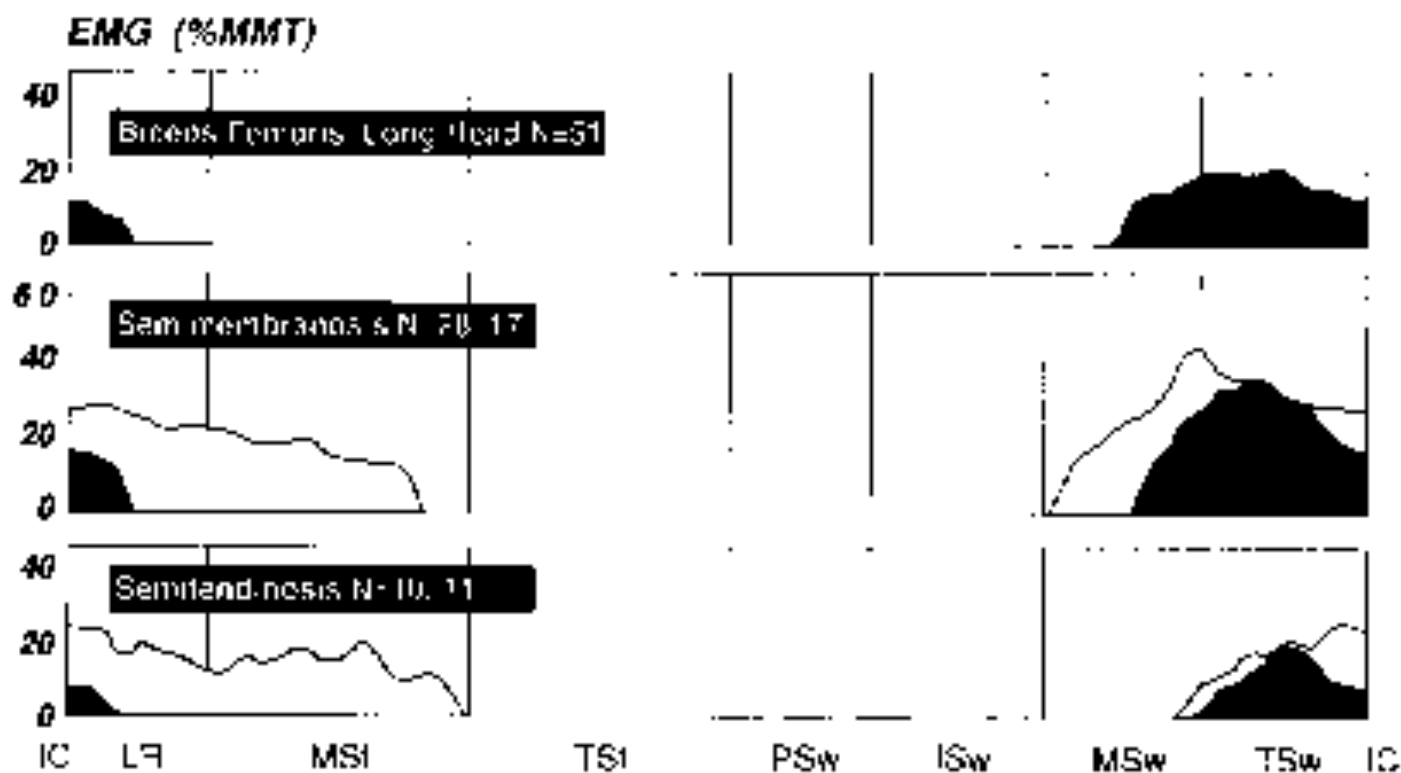


# MUSCLES

## FLECHISSEURS

### DU GENOU

#### *Knee Flexor Muscles*

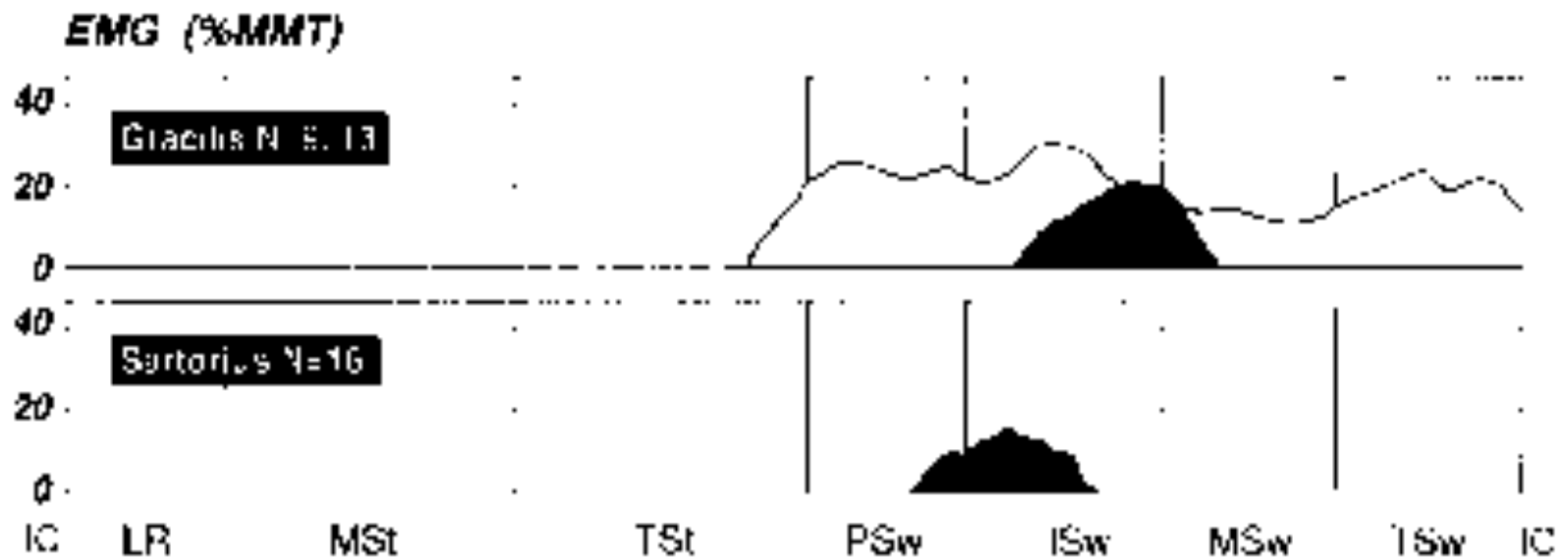


# MUSCLES

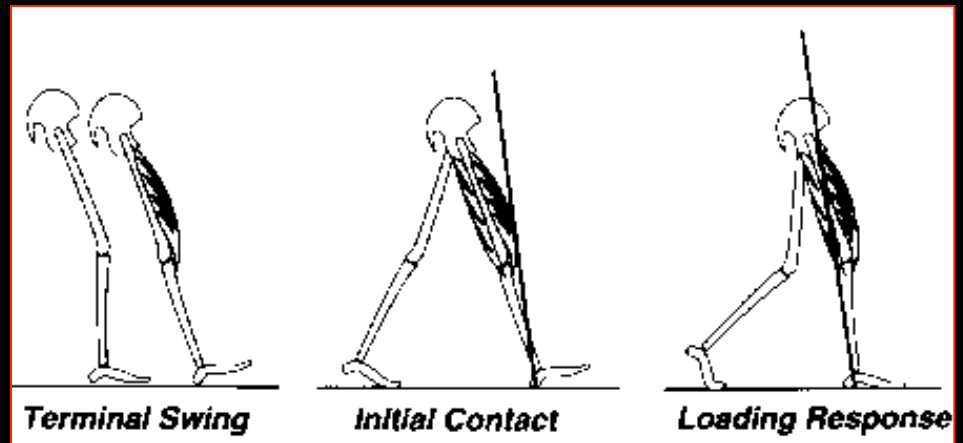
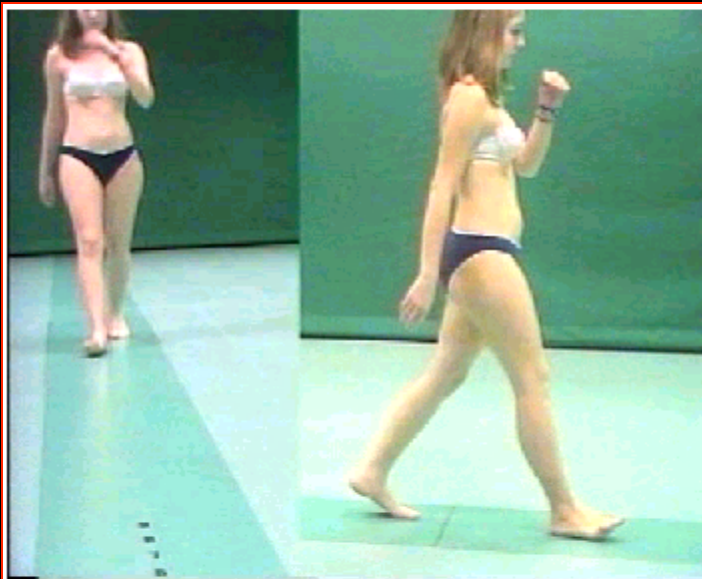
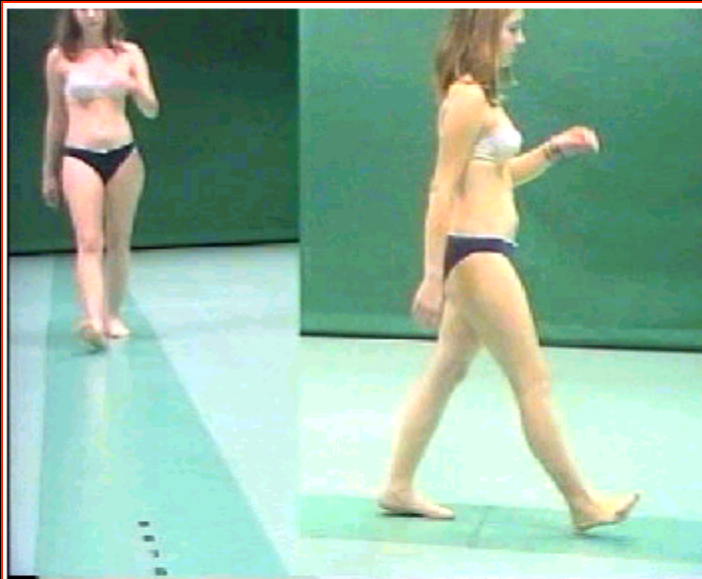
## FLECHISSEURS

### DU GENOU

#### *Knee Flexor Muscles*

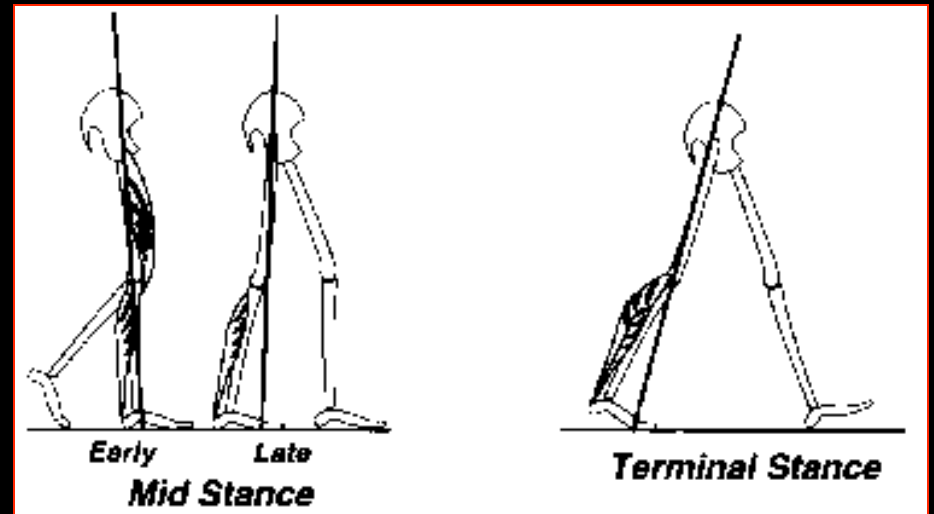
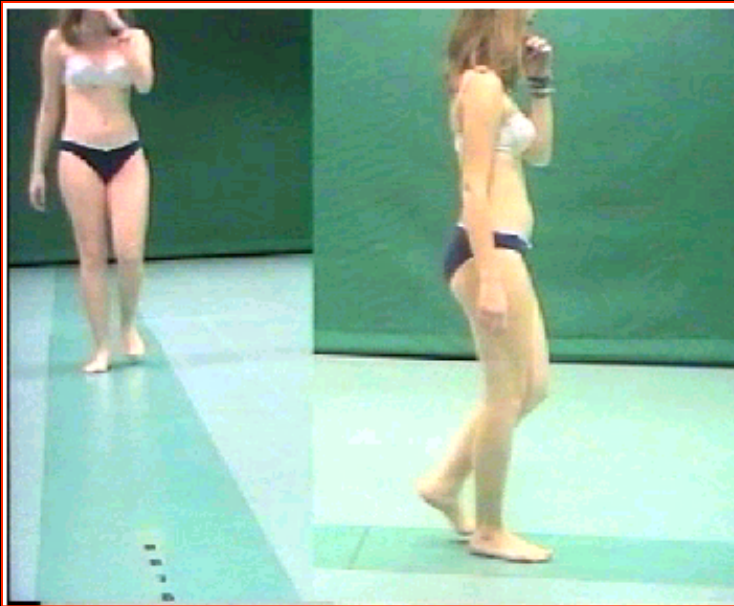


# INTERPRETATION FONCTIONNELLE

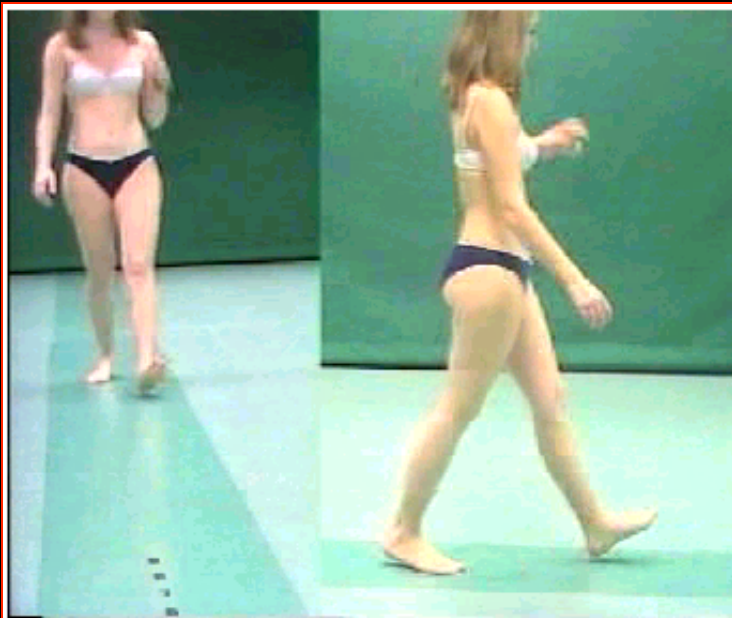


- CONTACT INITIAL
- MISE EN APPUI

# INTERPRETATION FONCTIONNELLE

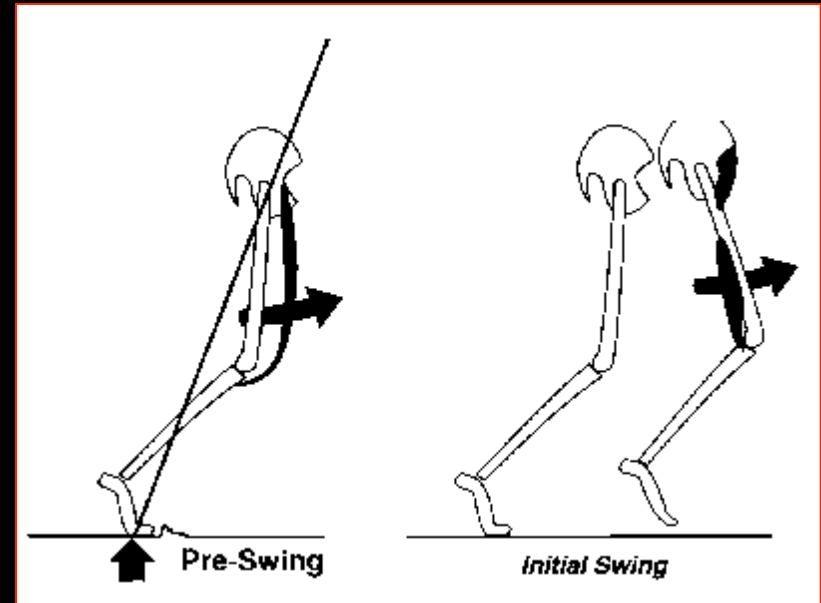
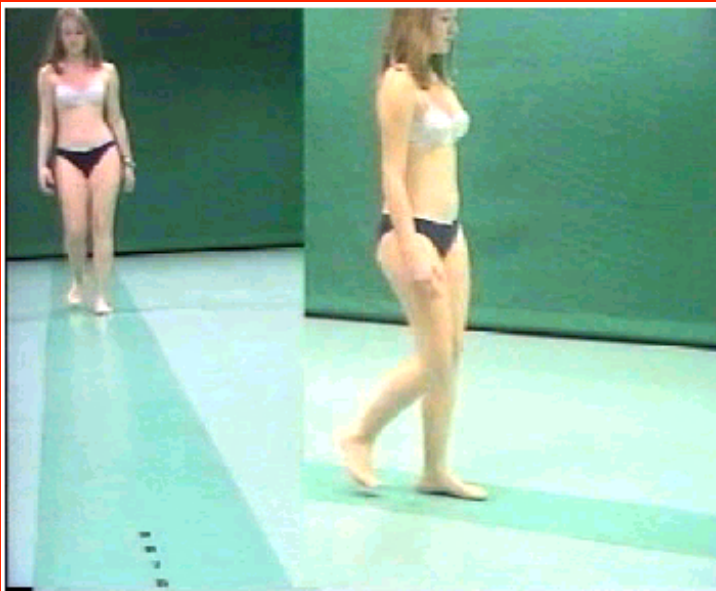


- MILIEU D' APPUI
- FIN D' APPUI



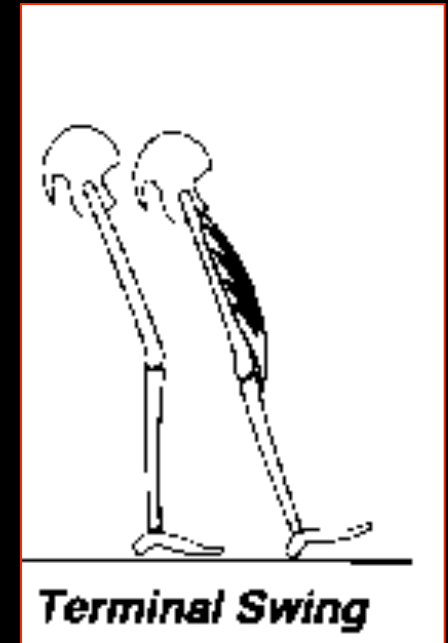
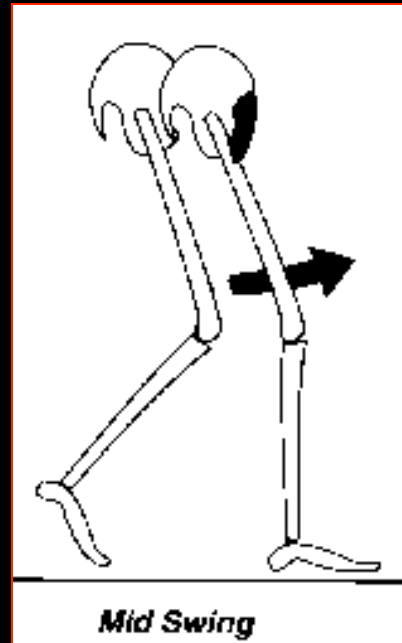
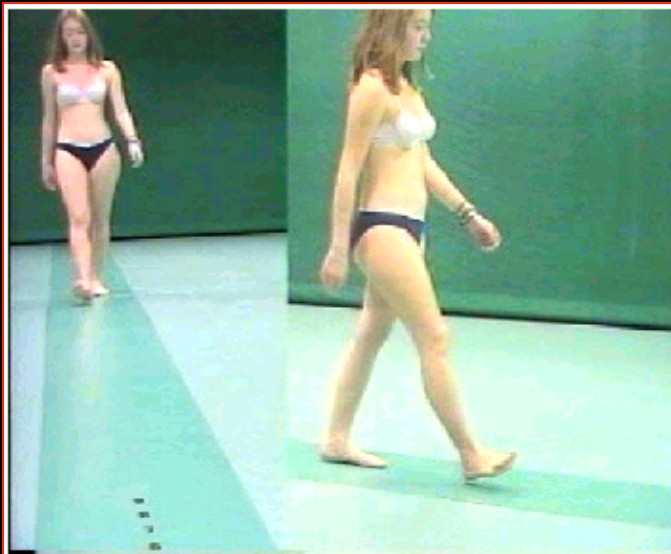
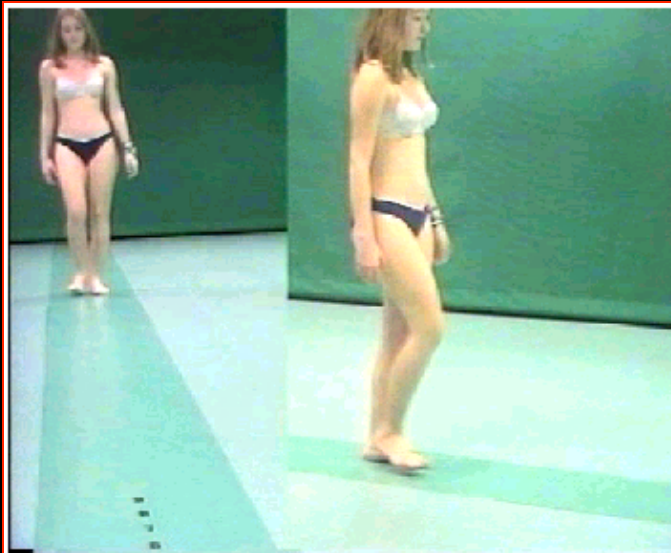


## INTERPRETATION FONCTIONNELLE



- PHASE PRE OSCILLANTE
- DEBUT PHASE OSCILLANTE

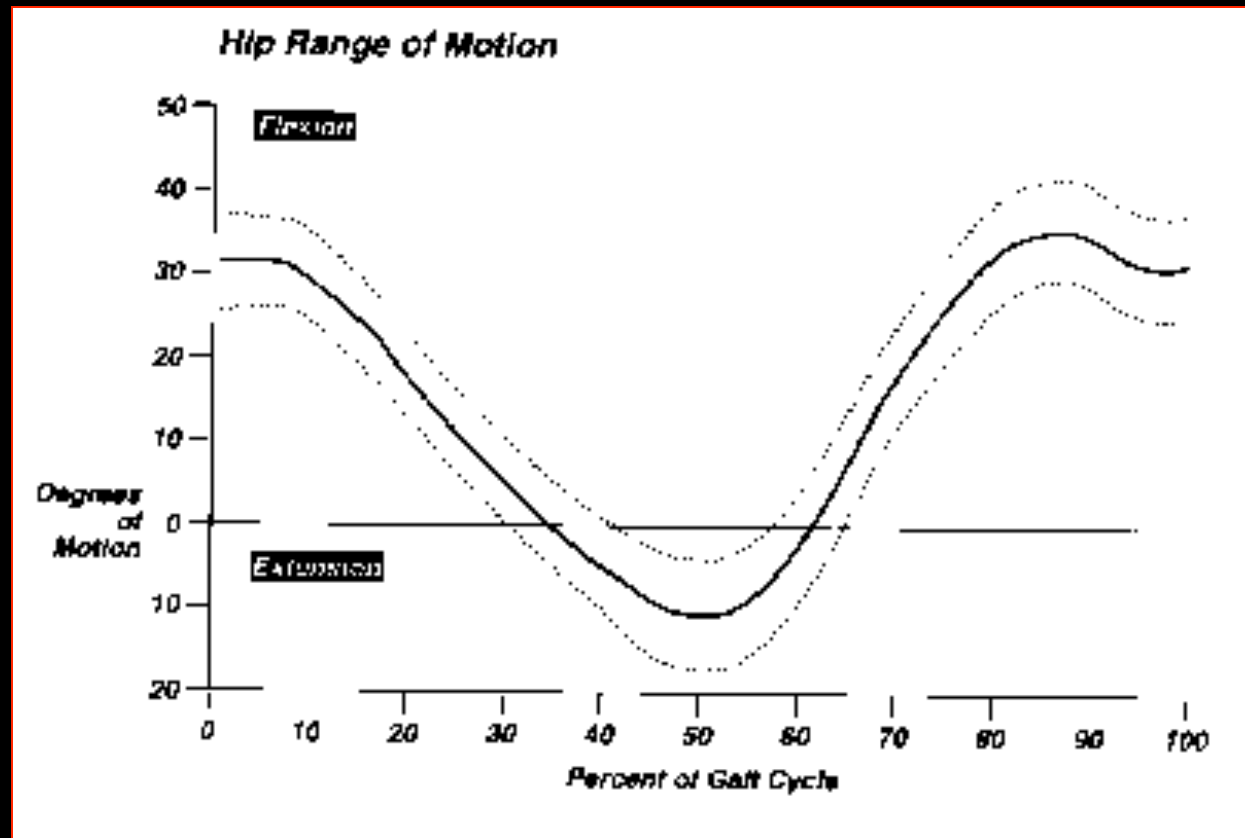
## INTERPRETATION FONCTIONNELLE

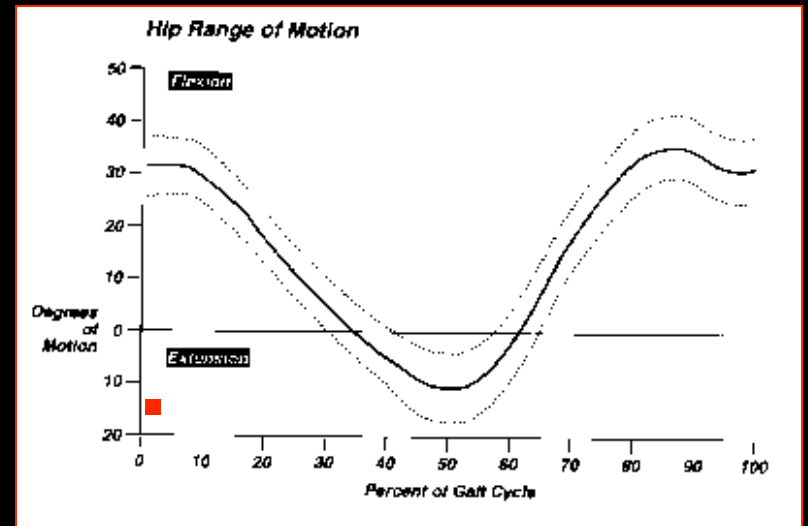
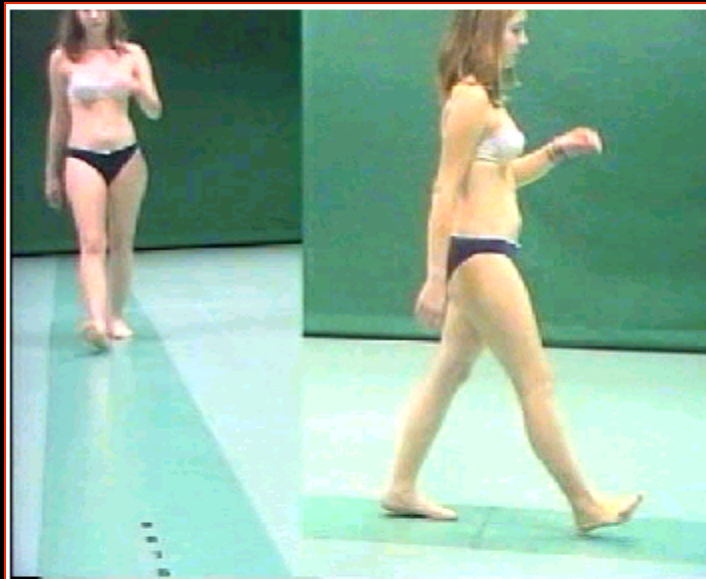
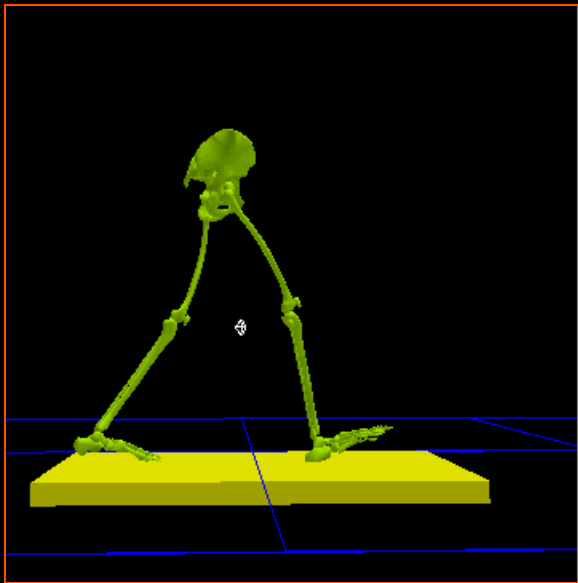


- MILIEU PHASE OSCILLANTE
- FIN PHASE OSCILLANTE

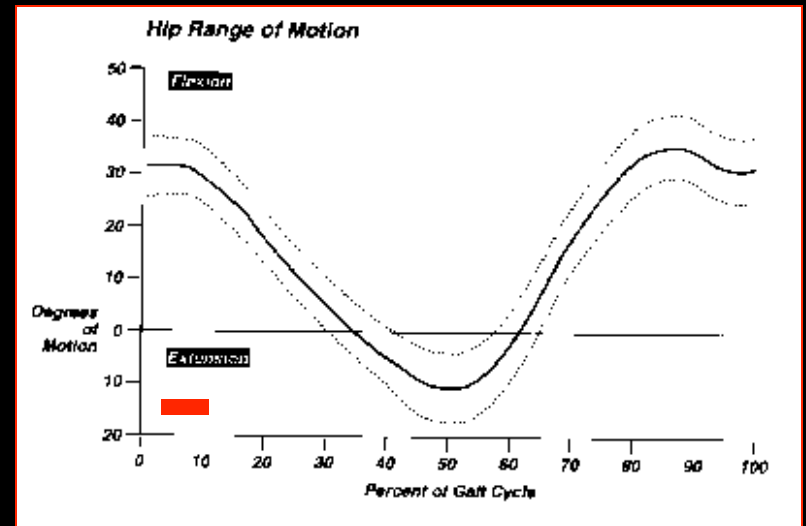
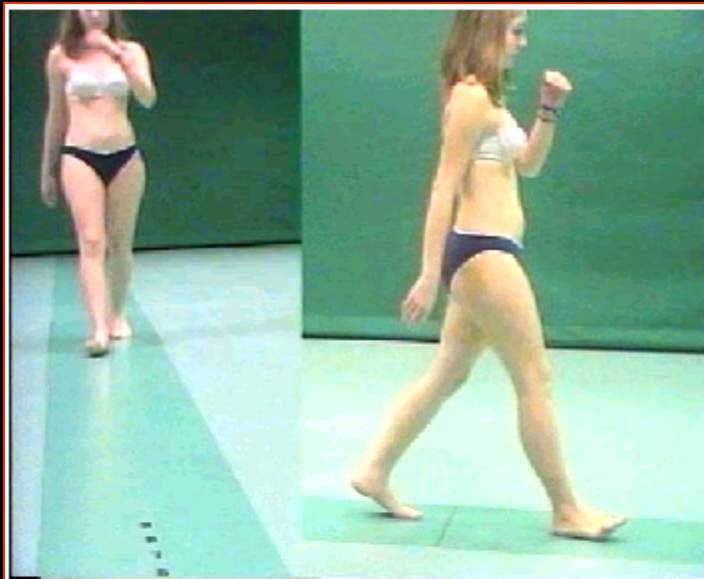
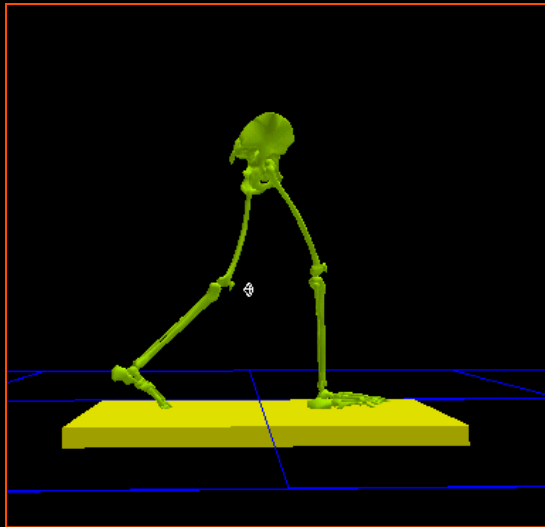
# **LA HANCHE NORMALE**

# CINEMATIQUE DE LA HANCHE

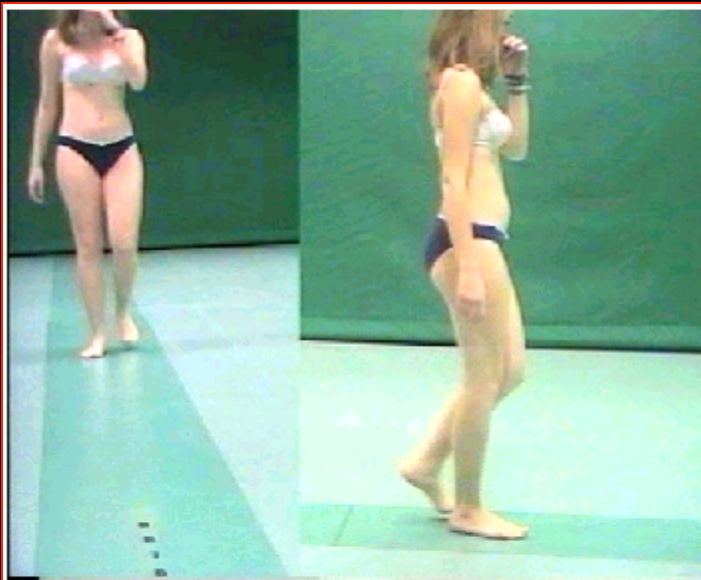
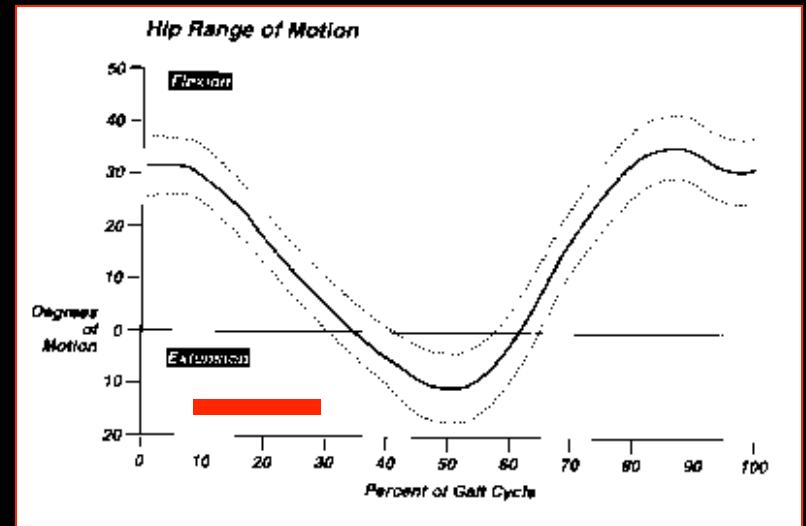
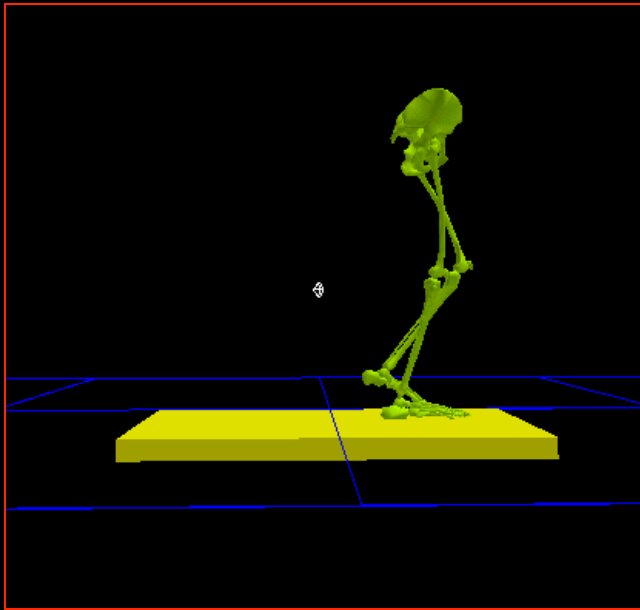




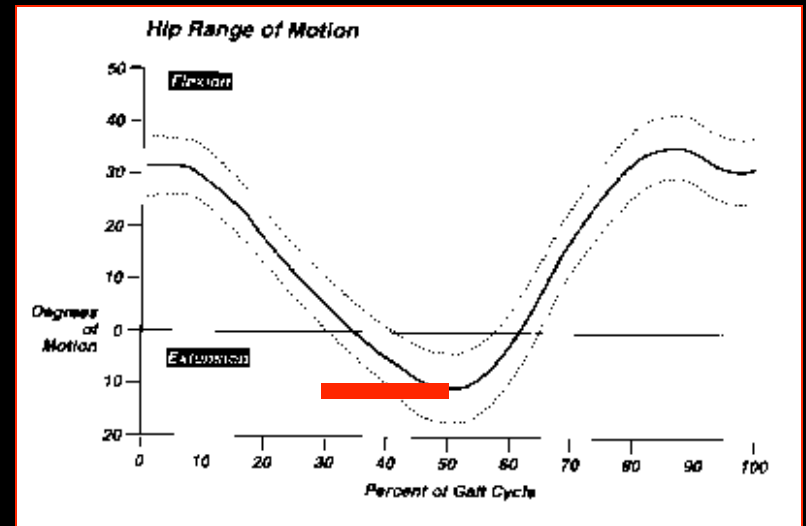
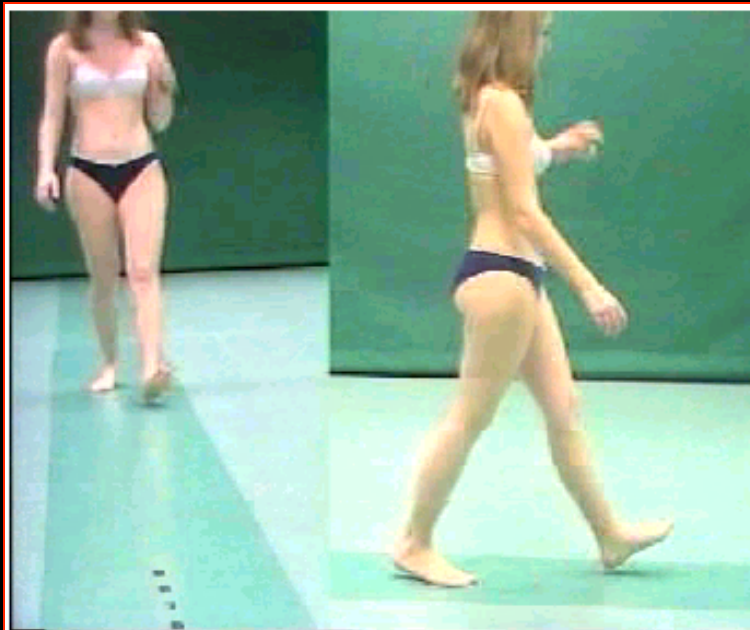
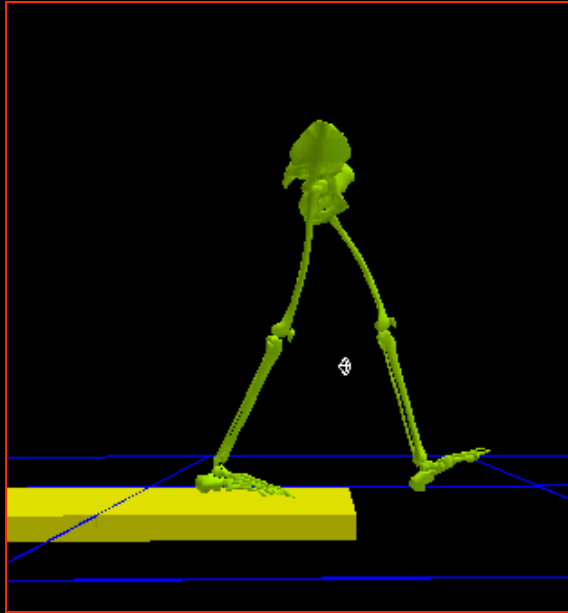
# MISE EN APPUI



# MILIEU D' APPUI

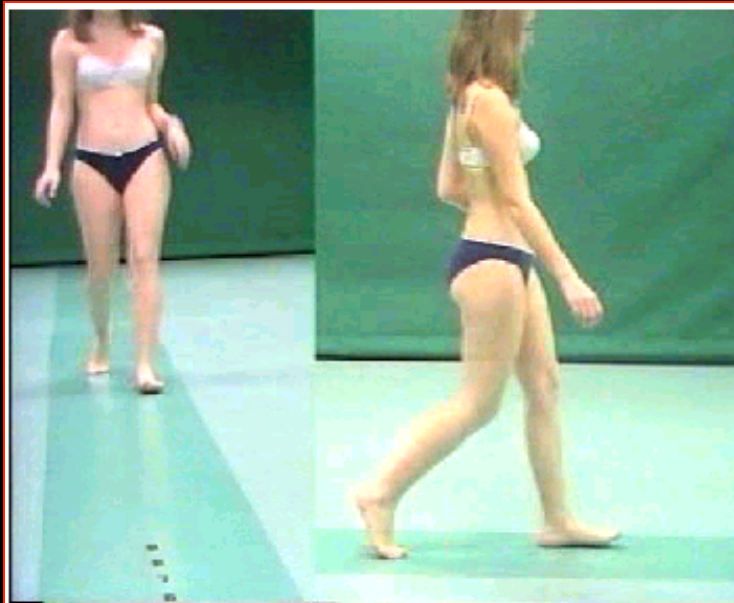
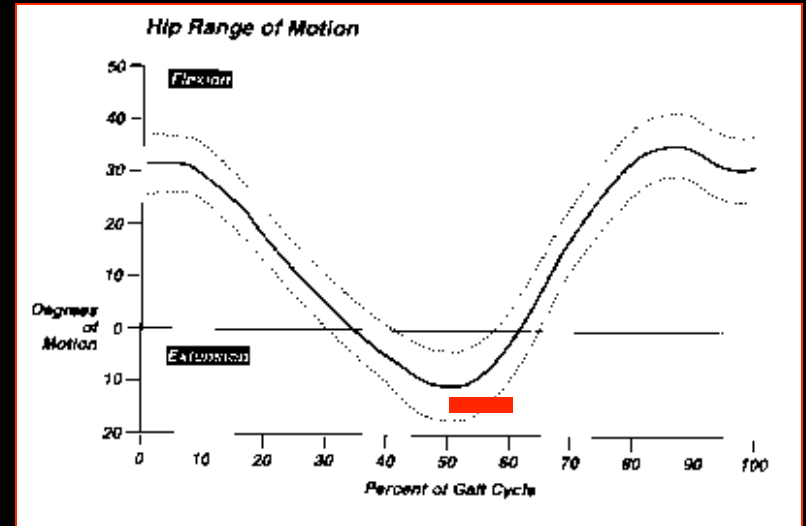
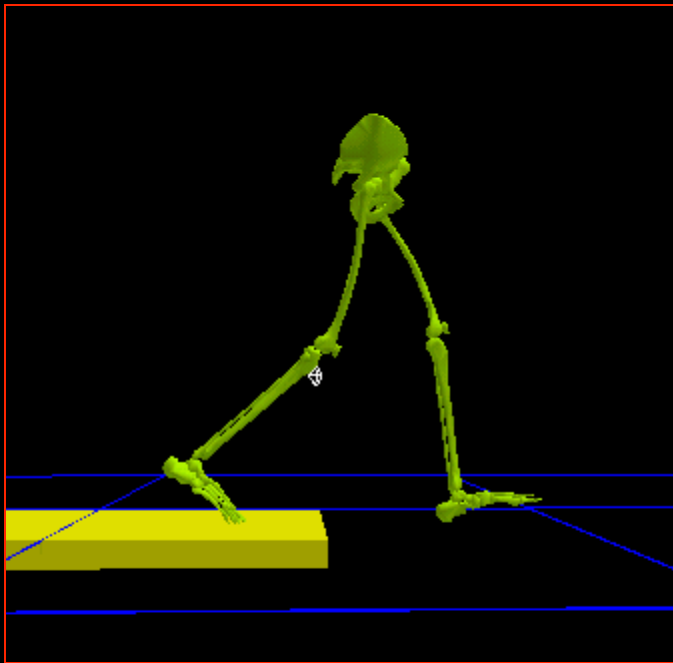


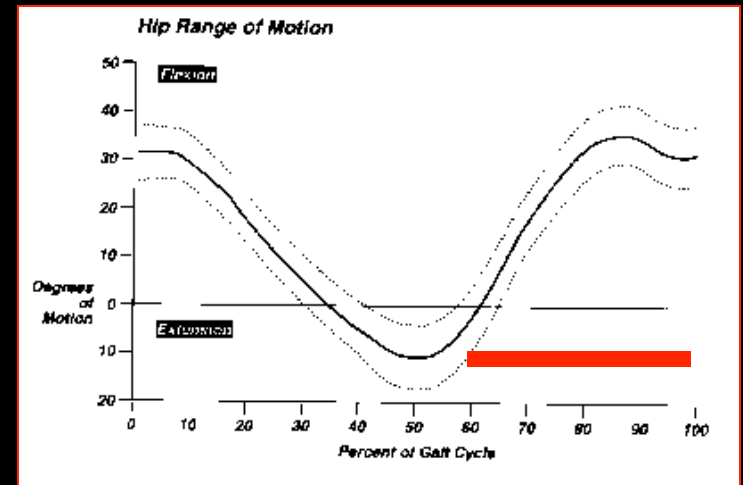
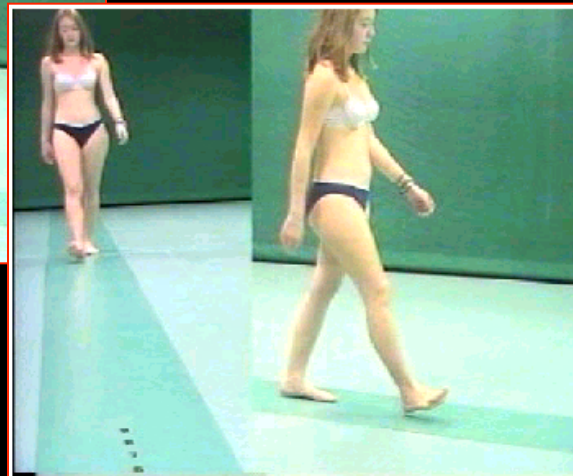
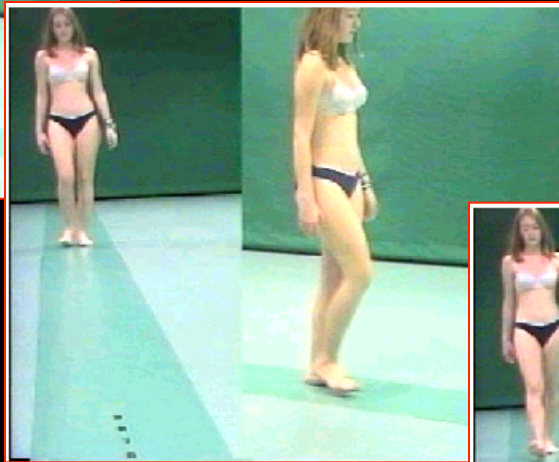
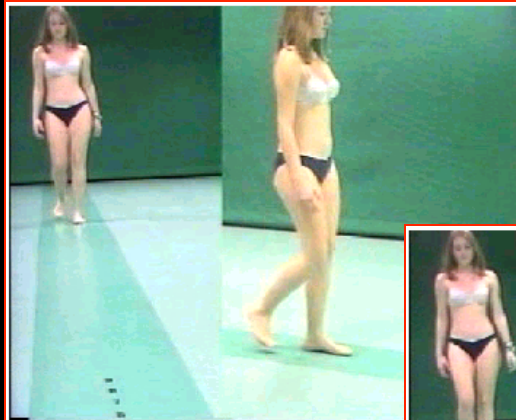
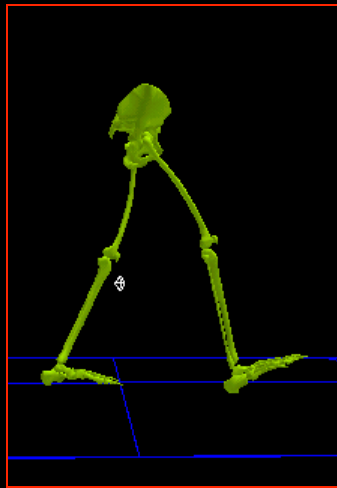
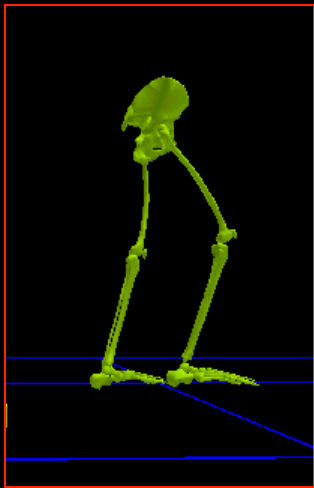
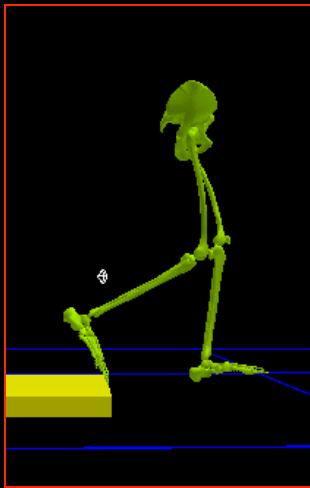
# FIN D' APPUI

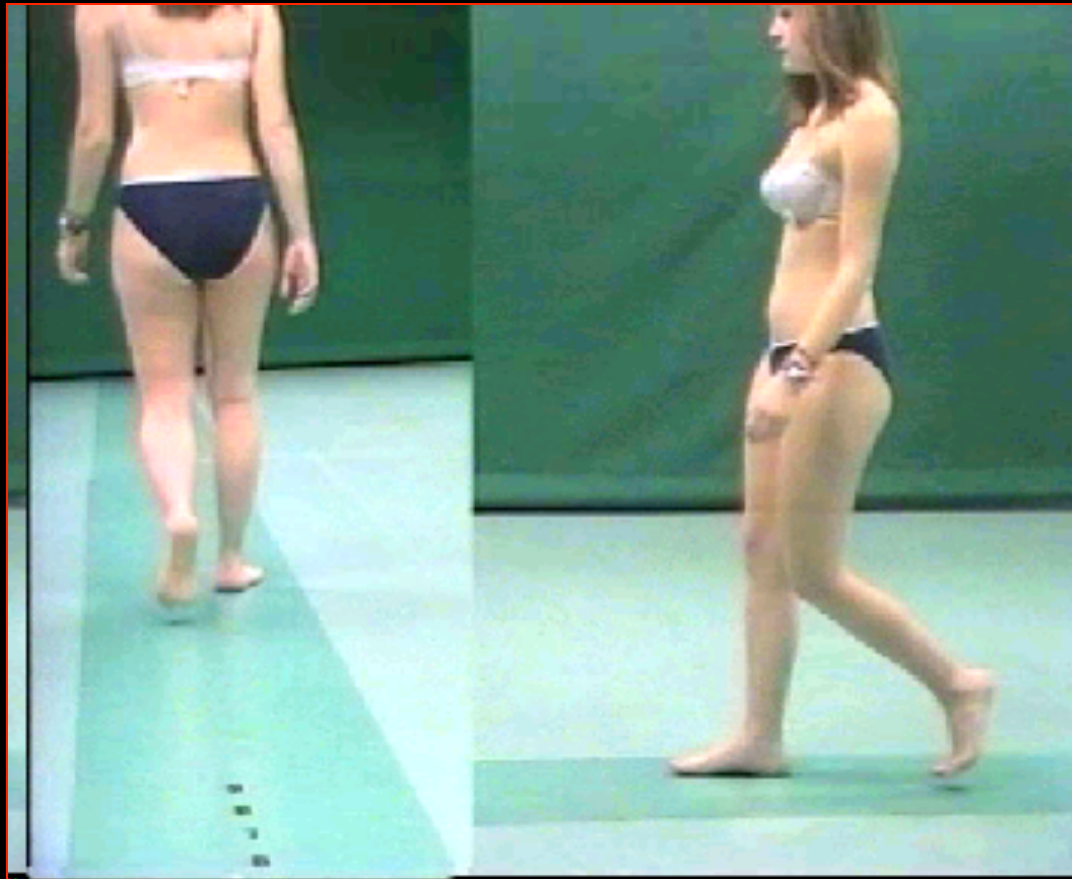




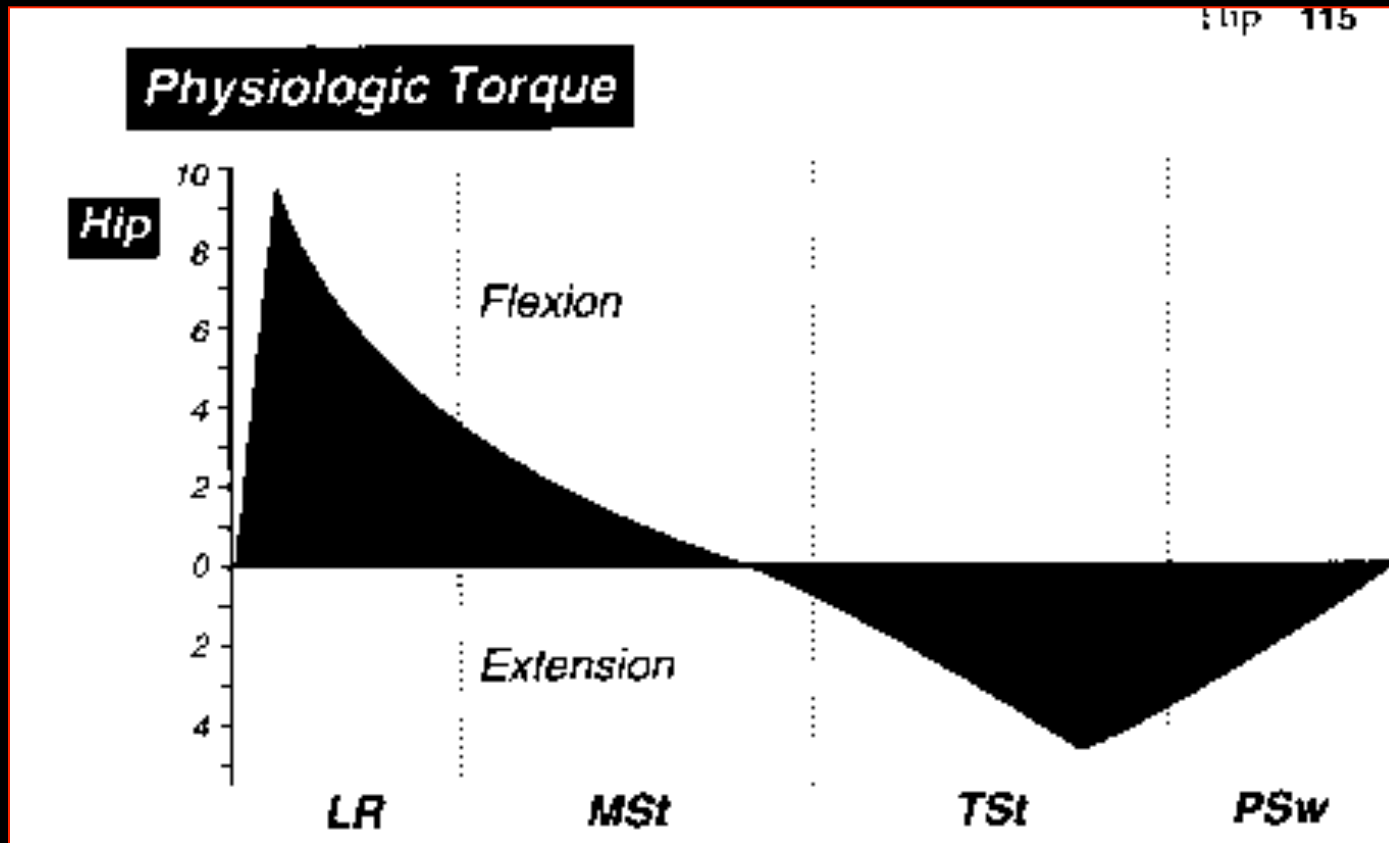
# PHASE PRE OSCILLANTE



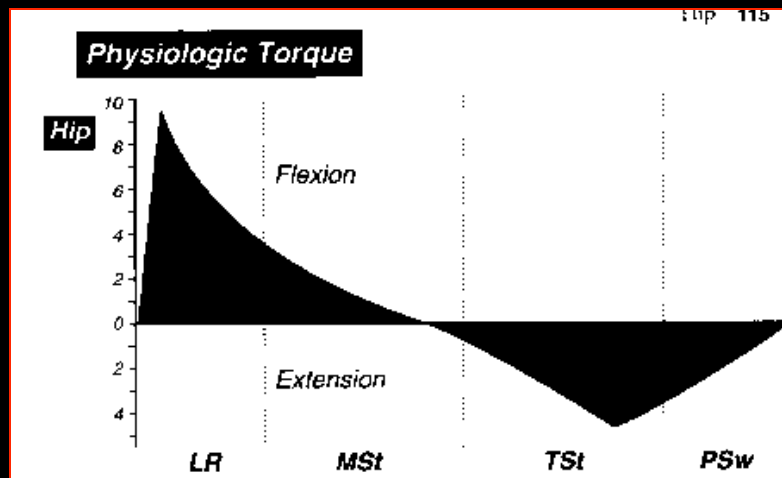
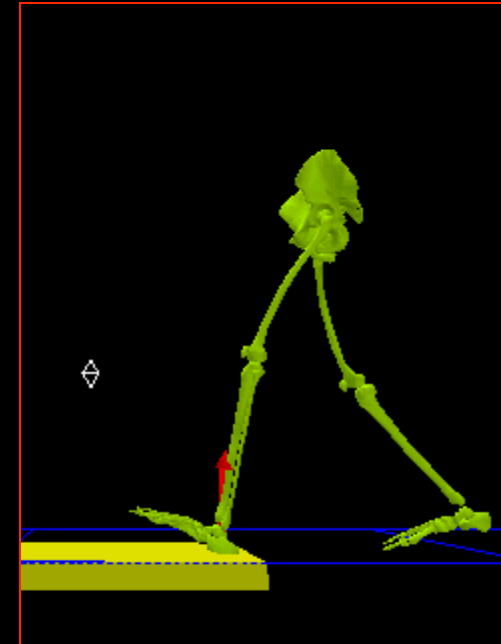
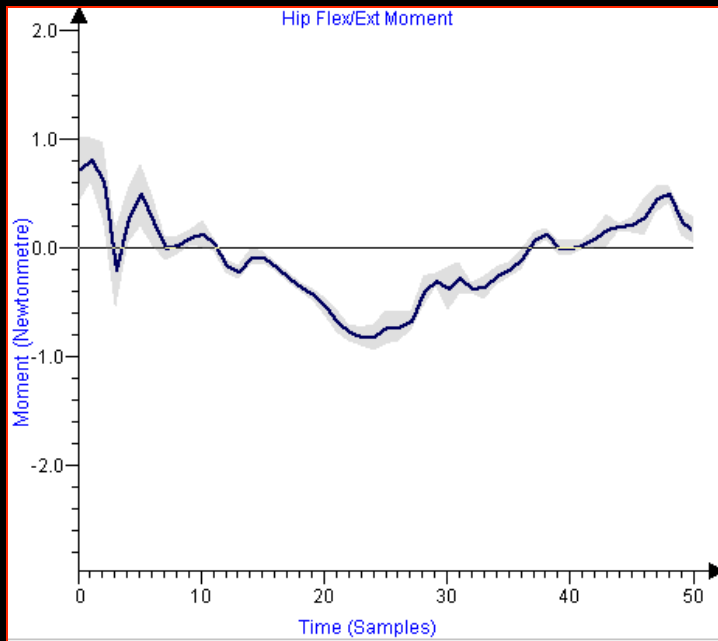




# CINETIQUE DE LA HANCHE

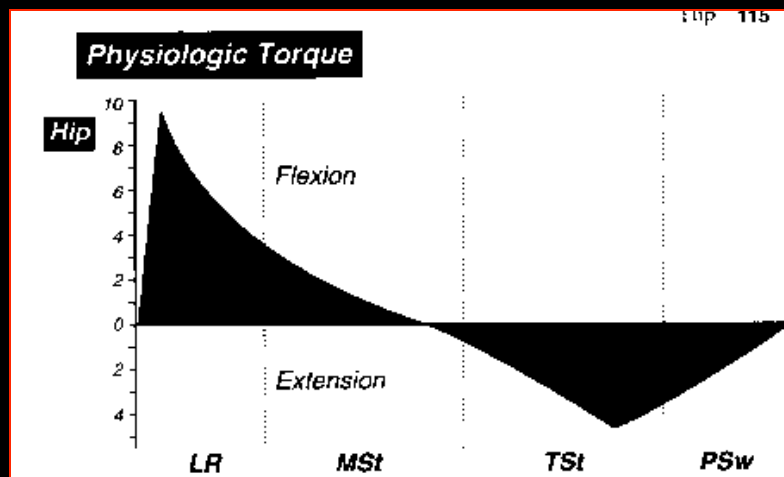
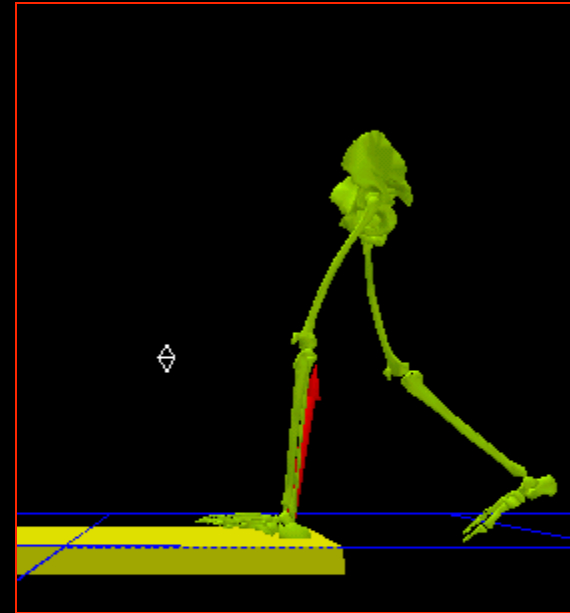
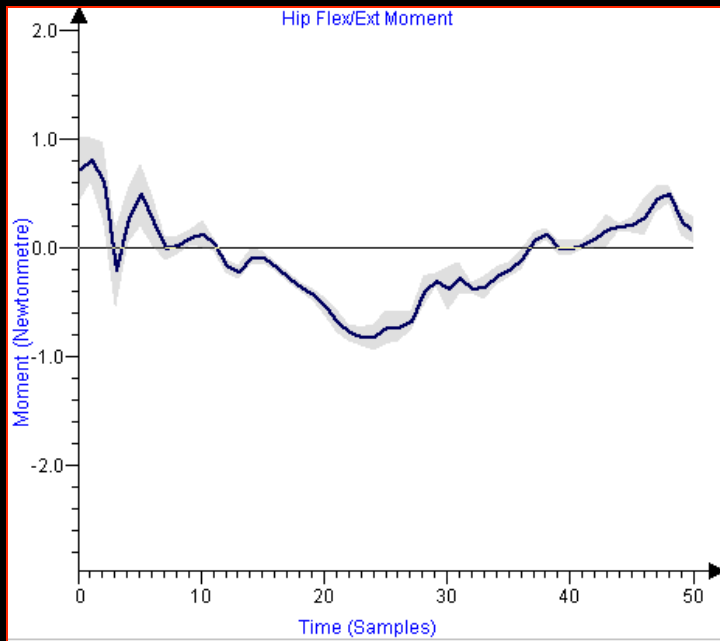


# CINETIQUE DE LA HANCHE



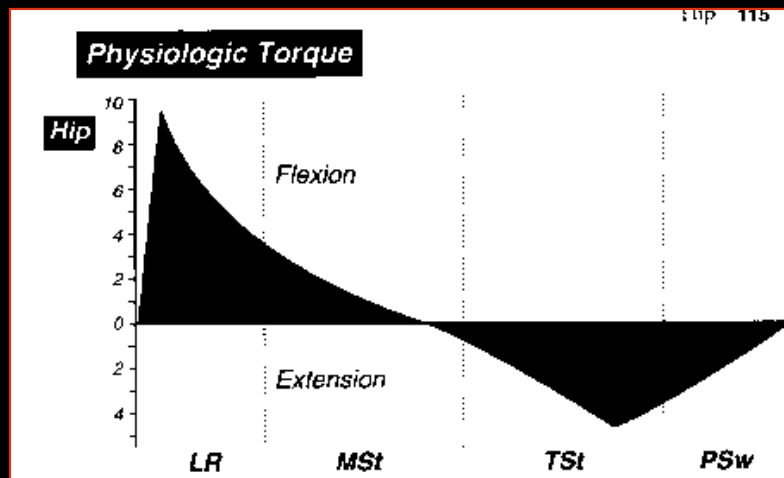
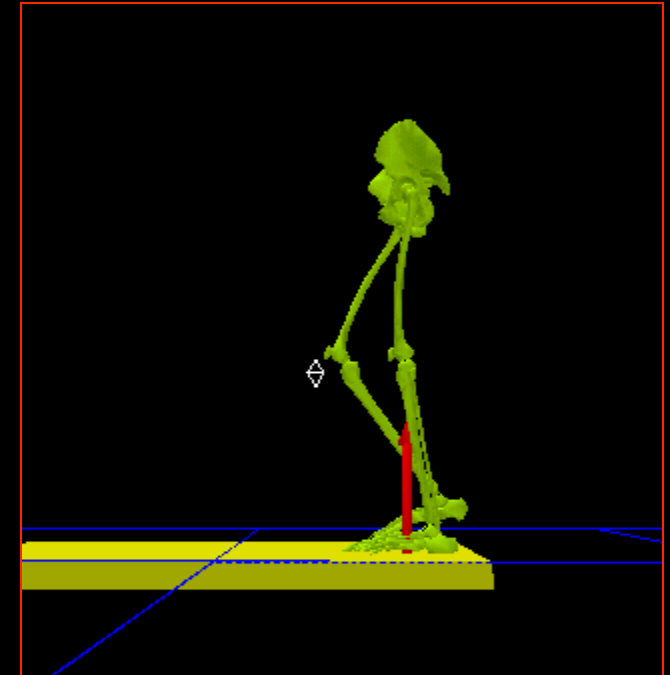
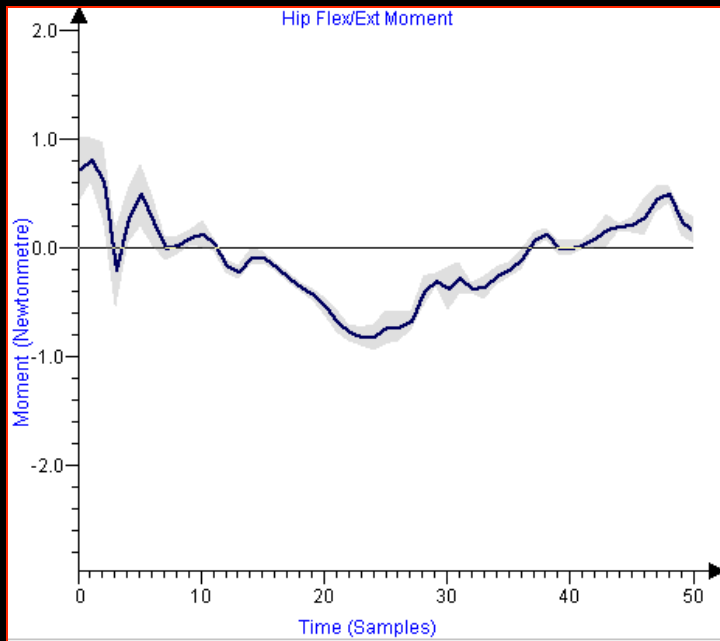
**CONTACT INITIAL**  
**Vecteur en avant de la hanche**

# CINETIQUE DE LA HANCHE



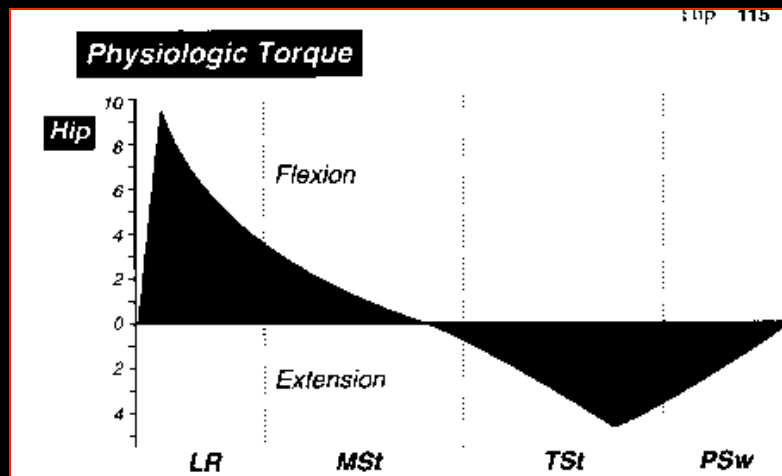
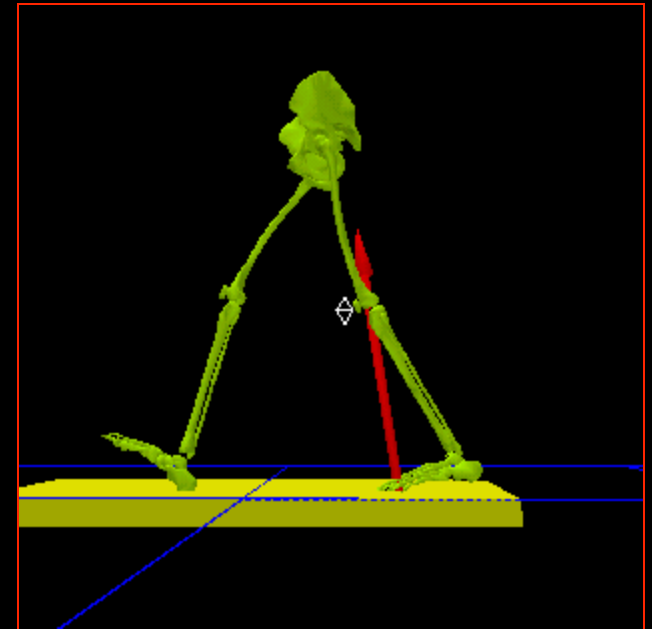
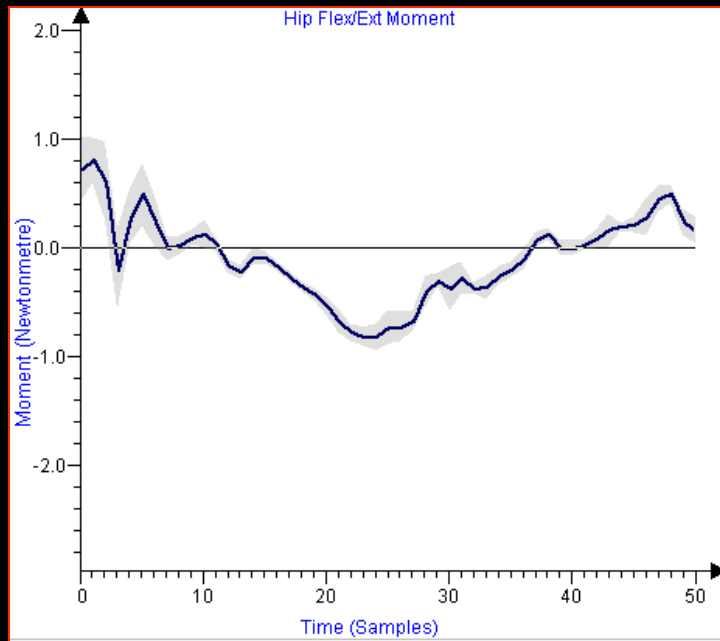
**MISE EN APPUI**  
**Vecteur en avant de la hanche**

# CINETIQUE DE LA HANCHE



**MILIEU D' APPUI**  
**Vecteur près de la hanche**

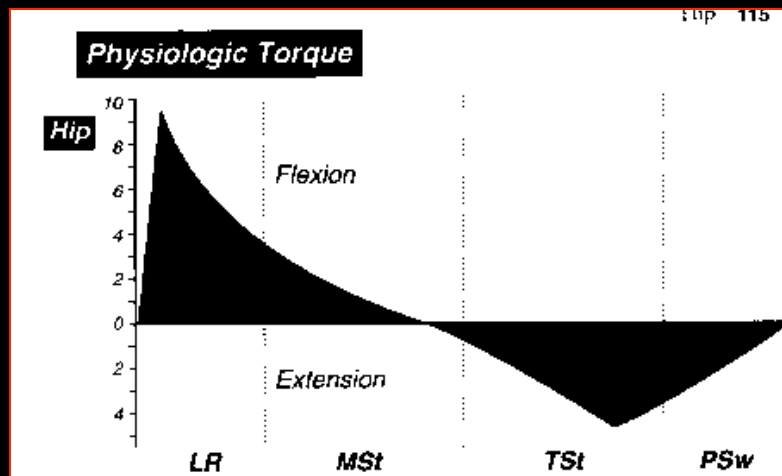
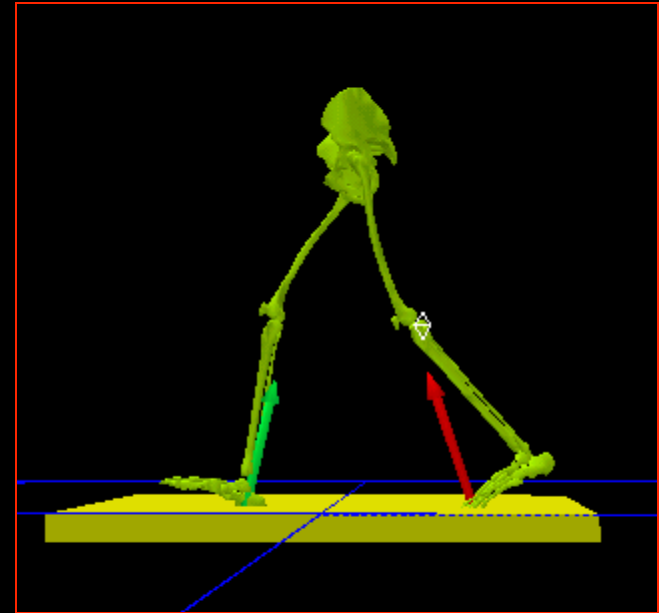
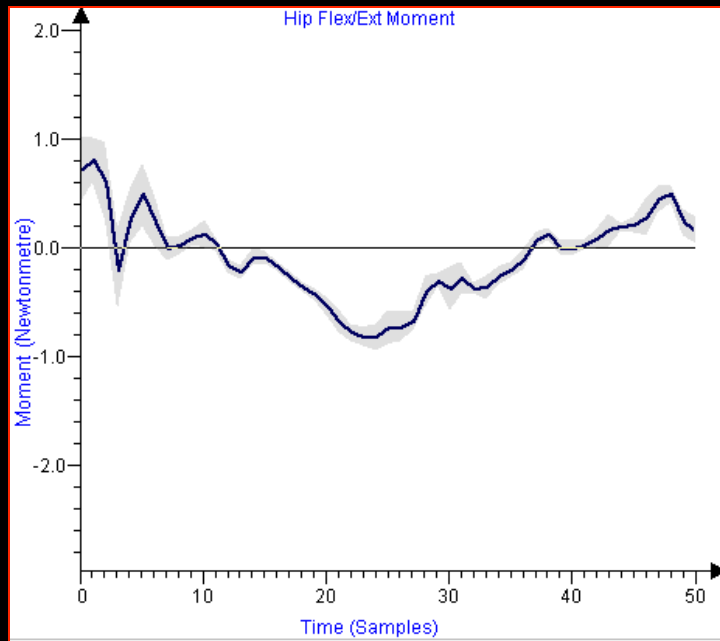
# CINETIQUE DE LA HANCHE



**FIN D' APPUI**  
**Vecteur en arrière de la hanche**

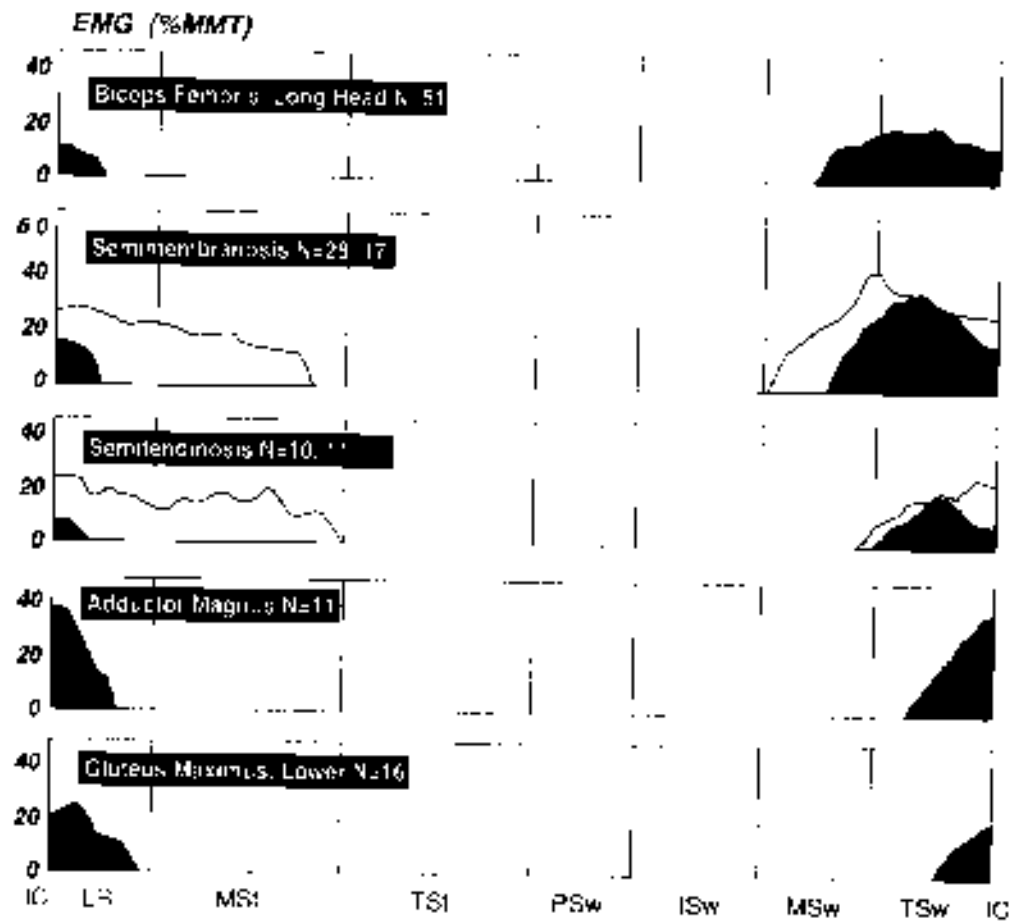


# CINETIQUE DE LA HANCHE

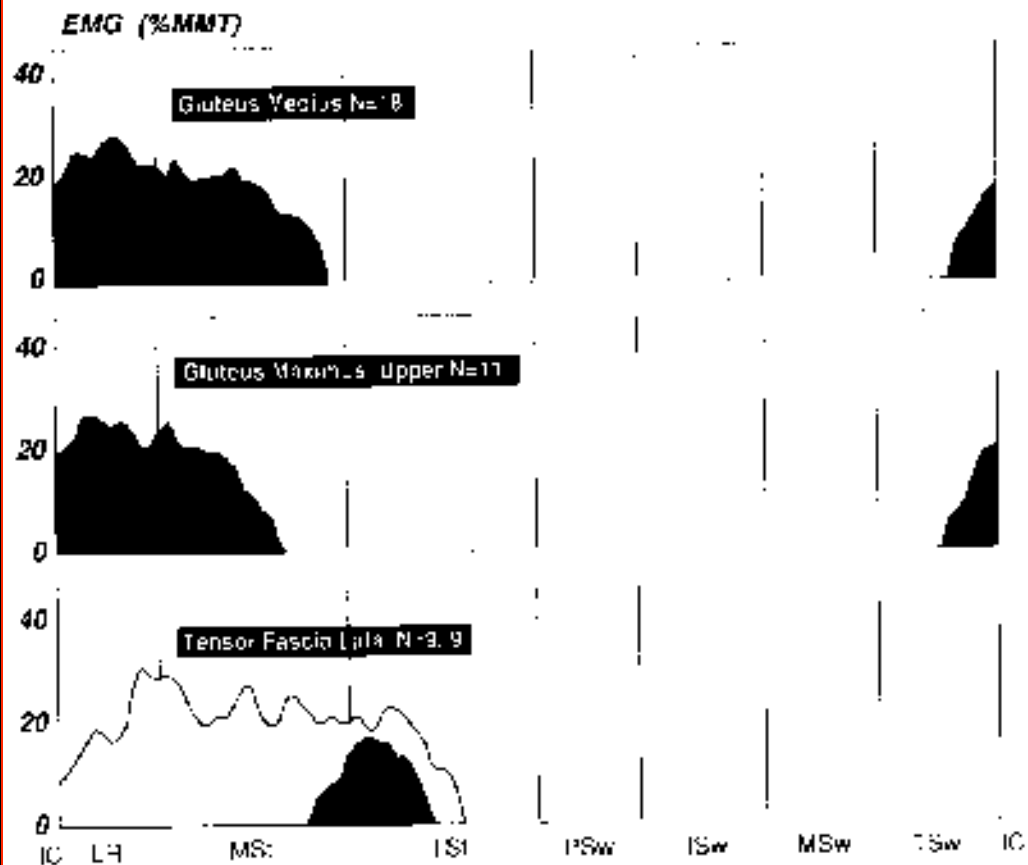


**PHASE PRE OSCILLANTE**  
**Déverrouillage**  
**Vecteur près de la hanche**

## Hip Extensor Muscles

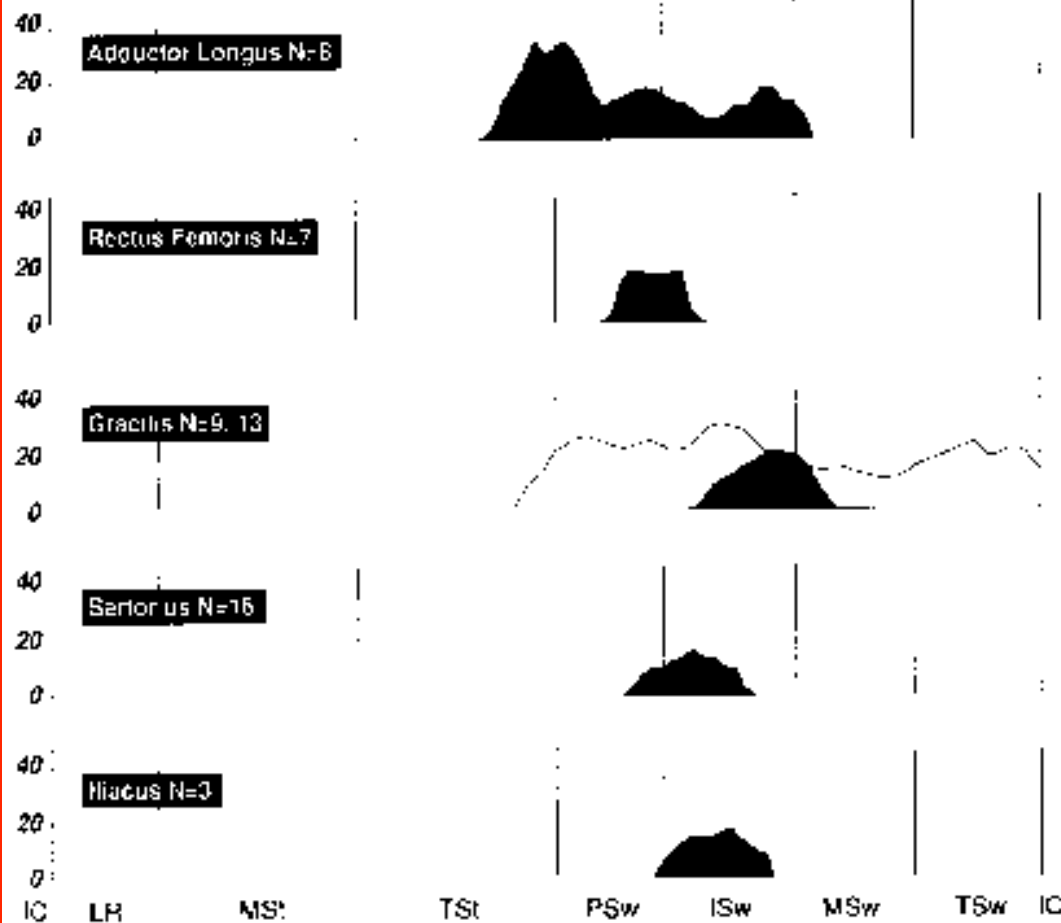


## Hip Abductor Muscles

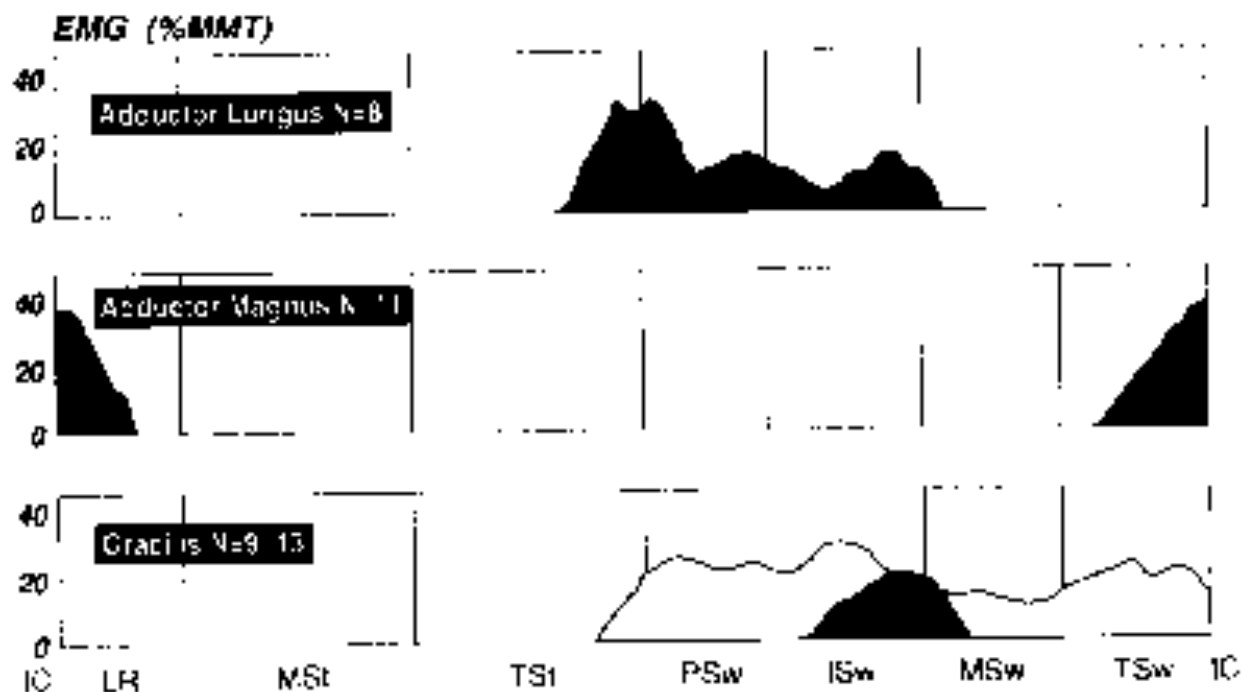


## Hip Flexor Muscles

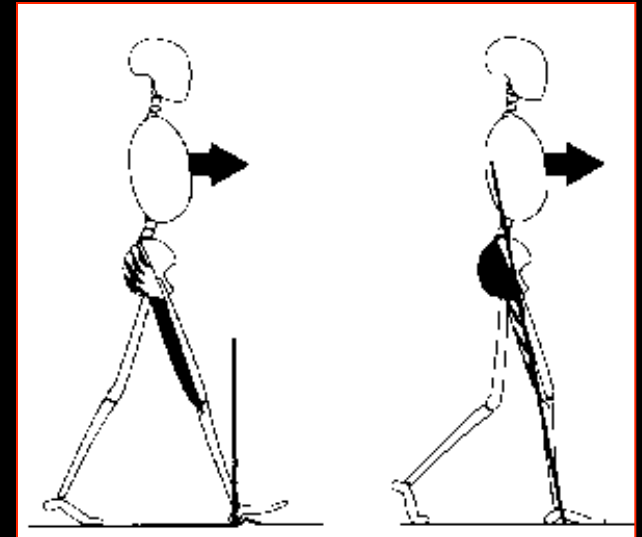
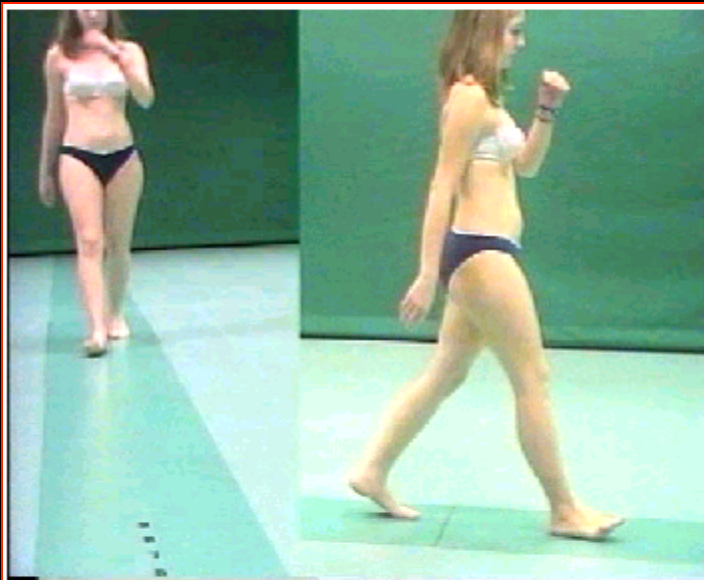
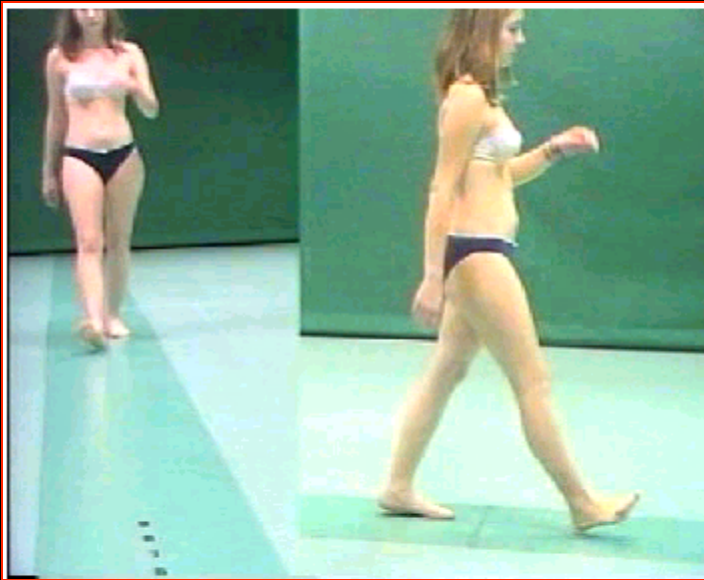
EMG (%MMT)



## Hip Adductor Muscles

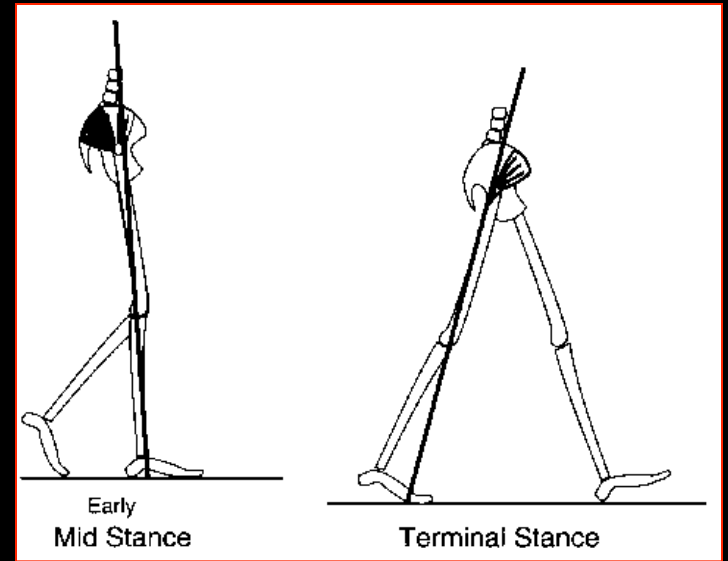
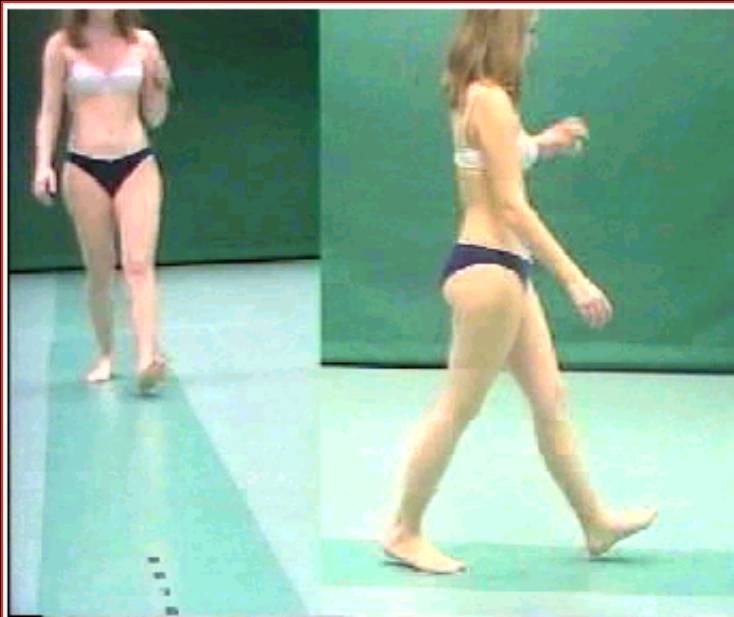
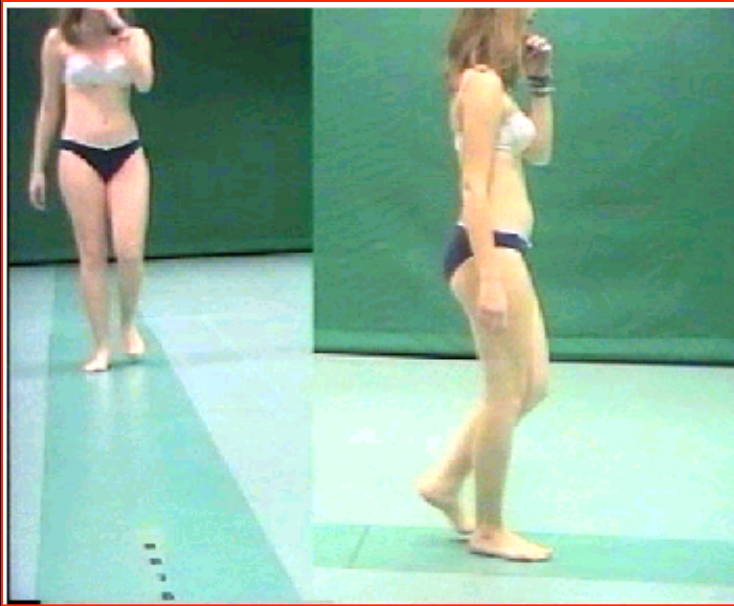


## INTERPRETATION FONCTIONNELLE



- CONTACT INITIAL
- MISE EN APPUI

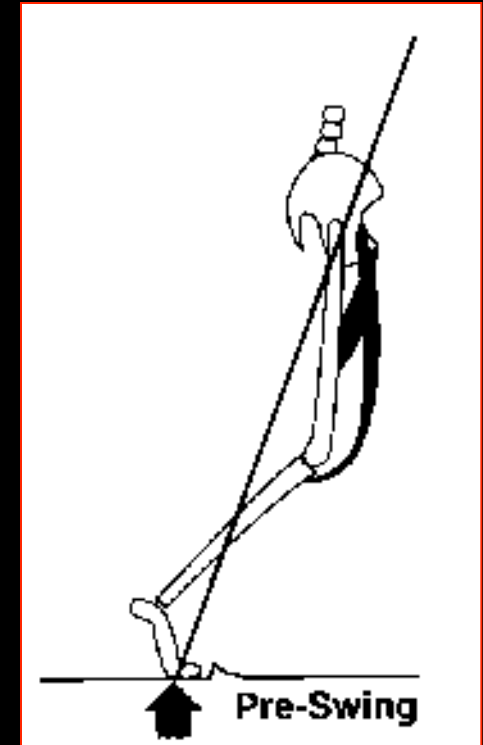
# INTERPRETATION FONCTIONNELLE



• **MILIEU D' APPUI**

• **FIN D' APPUI**

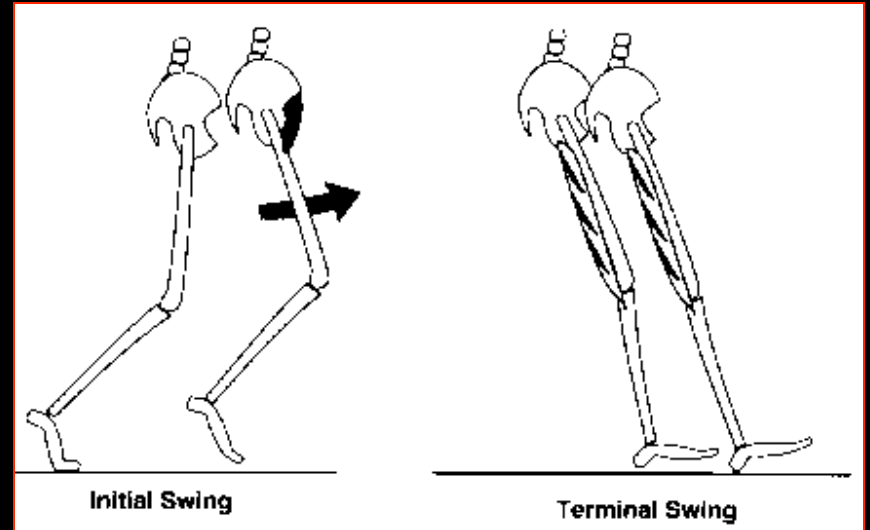
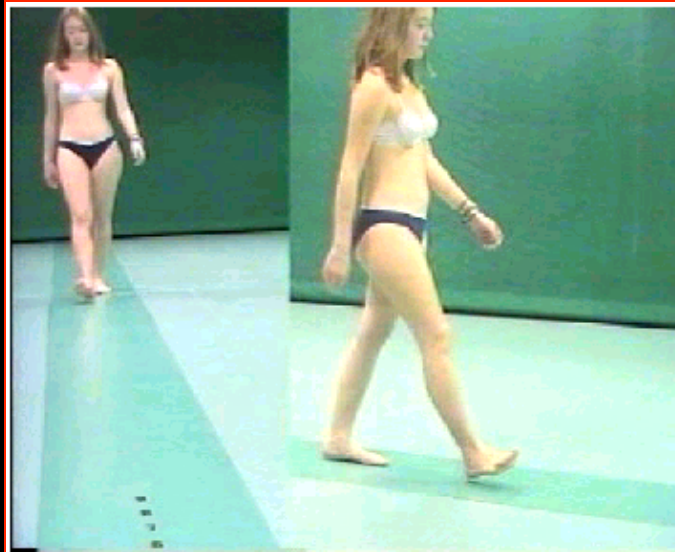
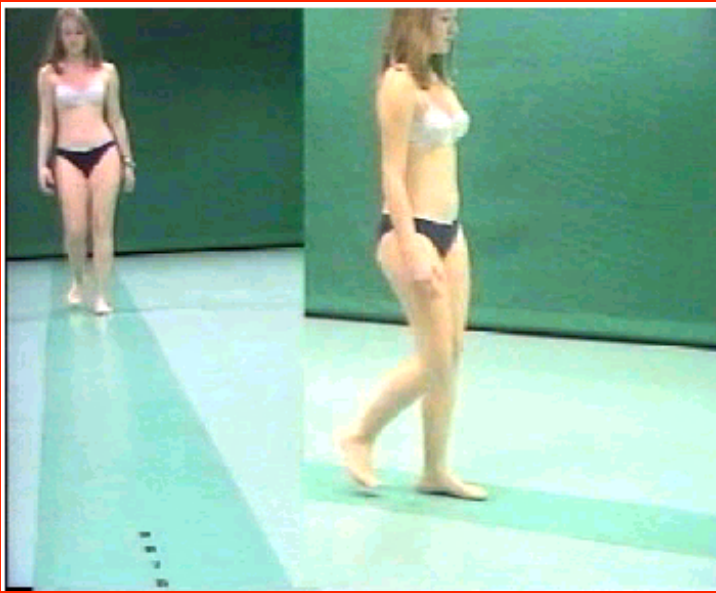
# INTERPRETATION FONCTIONNELLE



•PHASE PRE OSCILLANTE



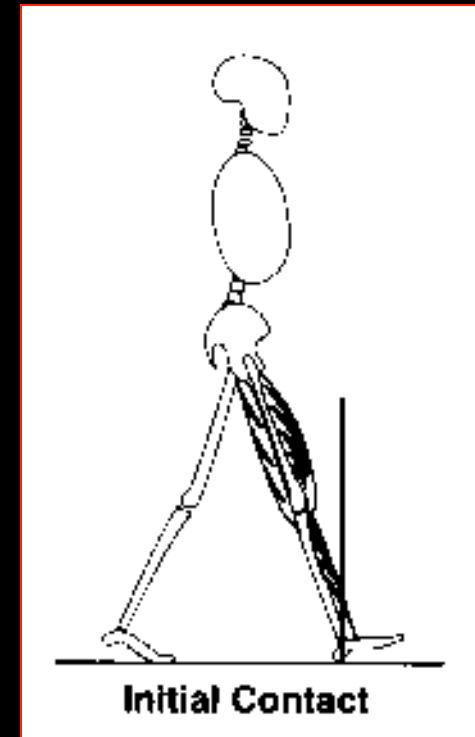
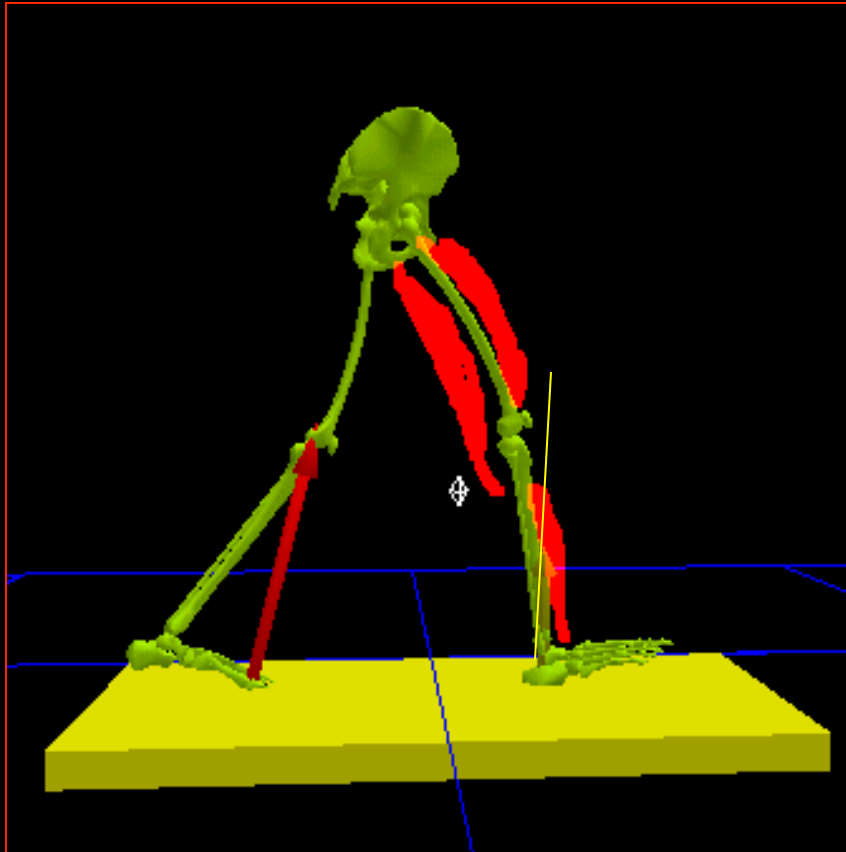
# INTERPRETATION FONCTIONNELLE



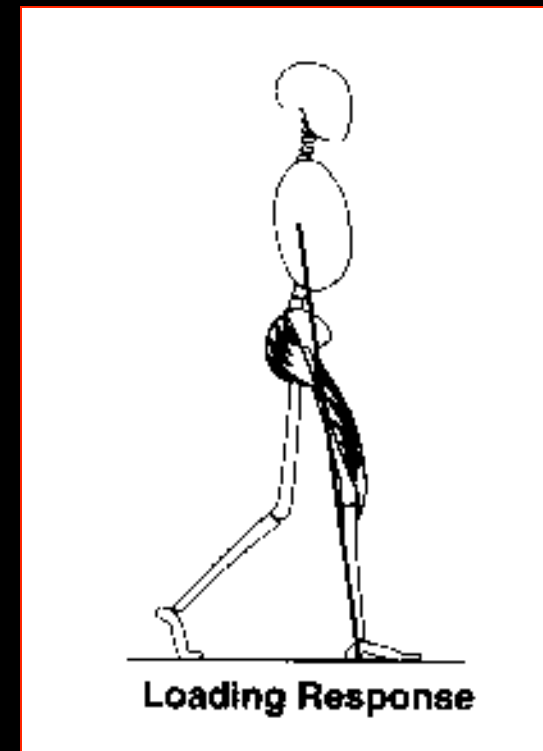
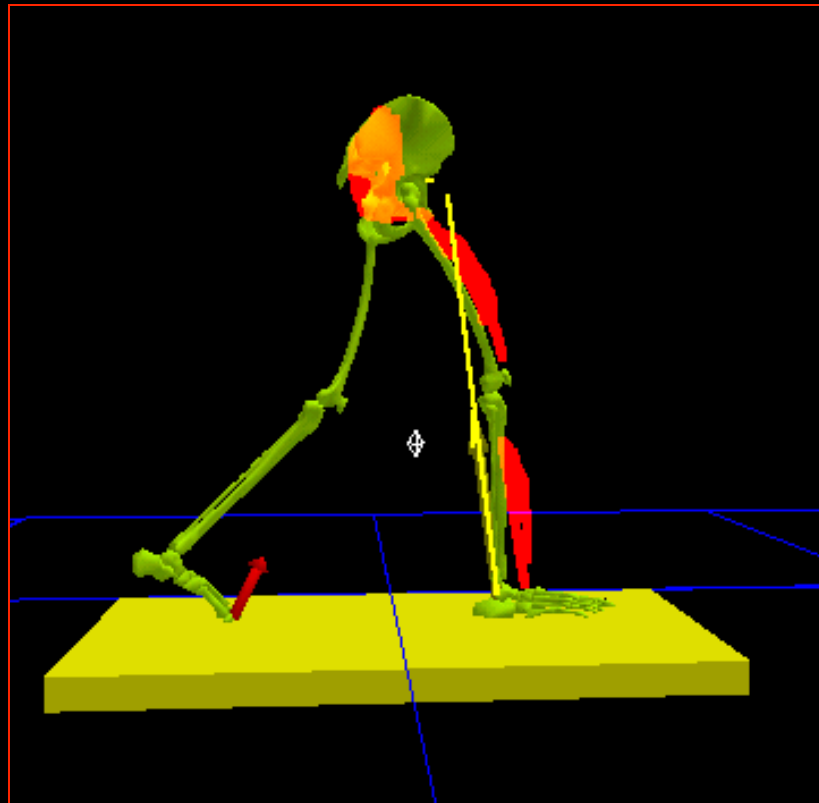
**DEBUT PHASE OSCILLANTE**

**FIN PHASE OSCILLANTE**

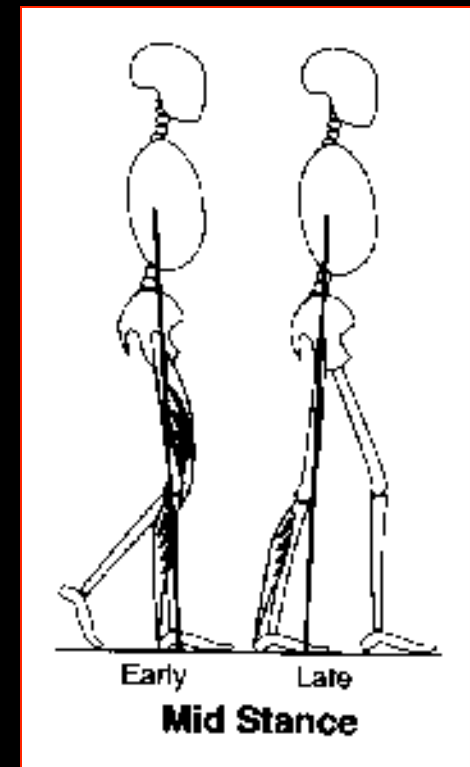
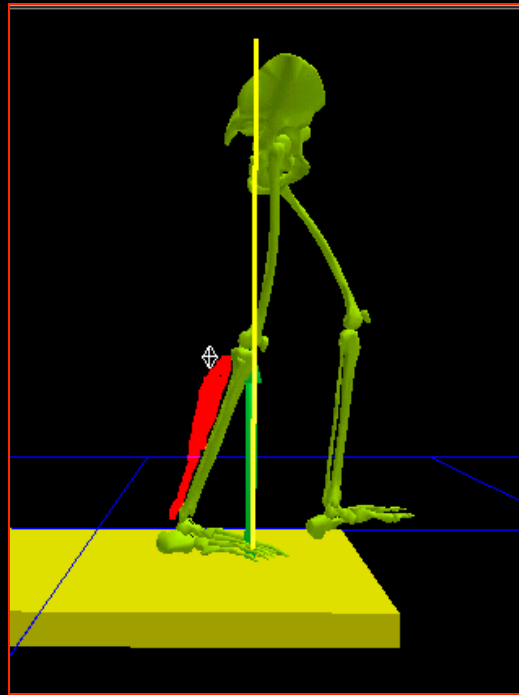
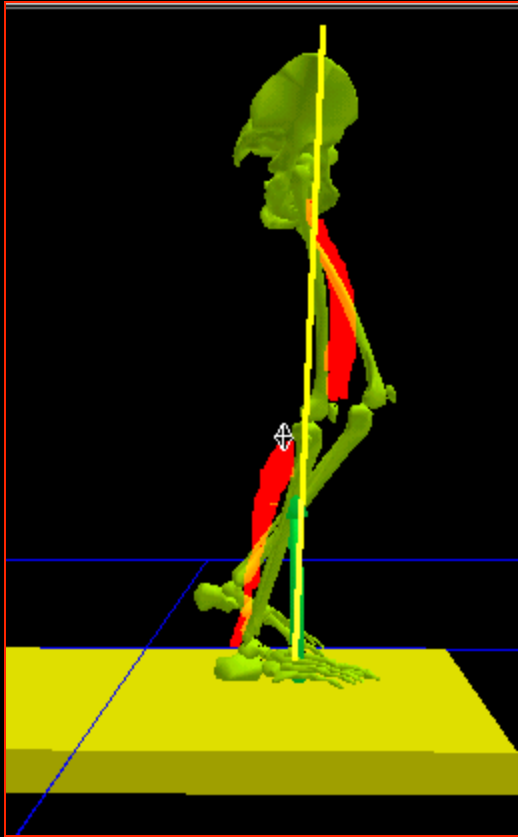
# INTERPRETATION FONCTIONNELLE GLOBALE



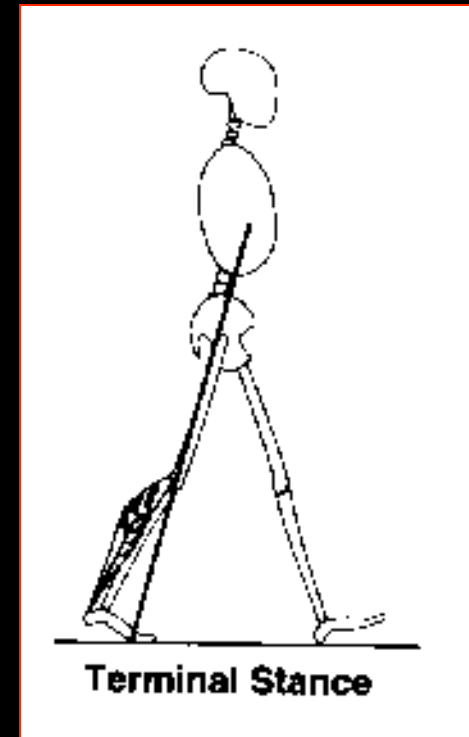
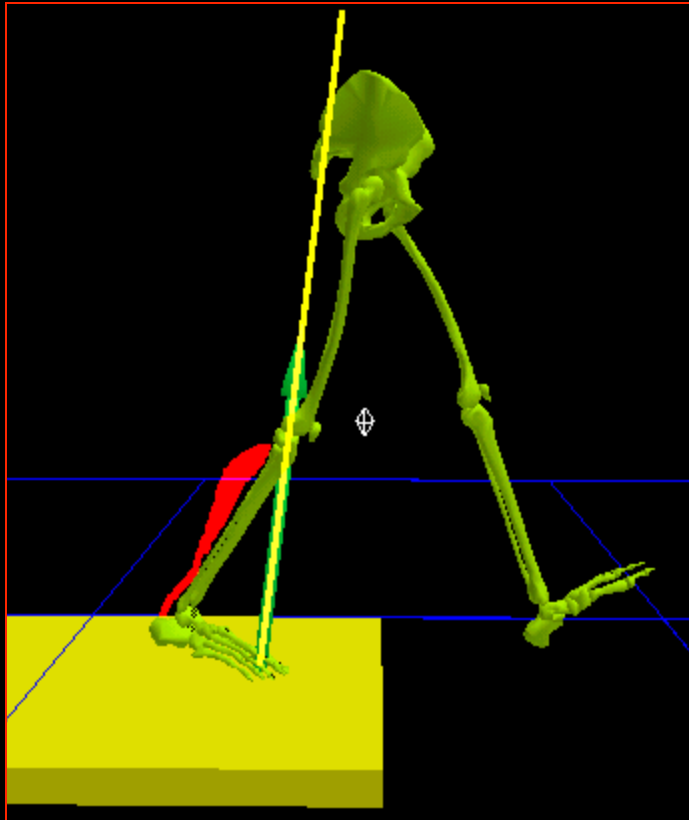
# INTERPRETATION FONCTIONNELLE GLOBALE



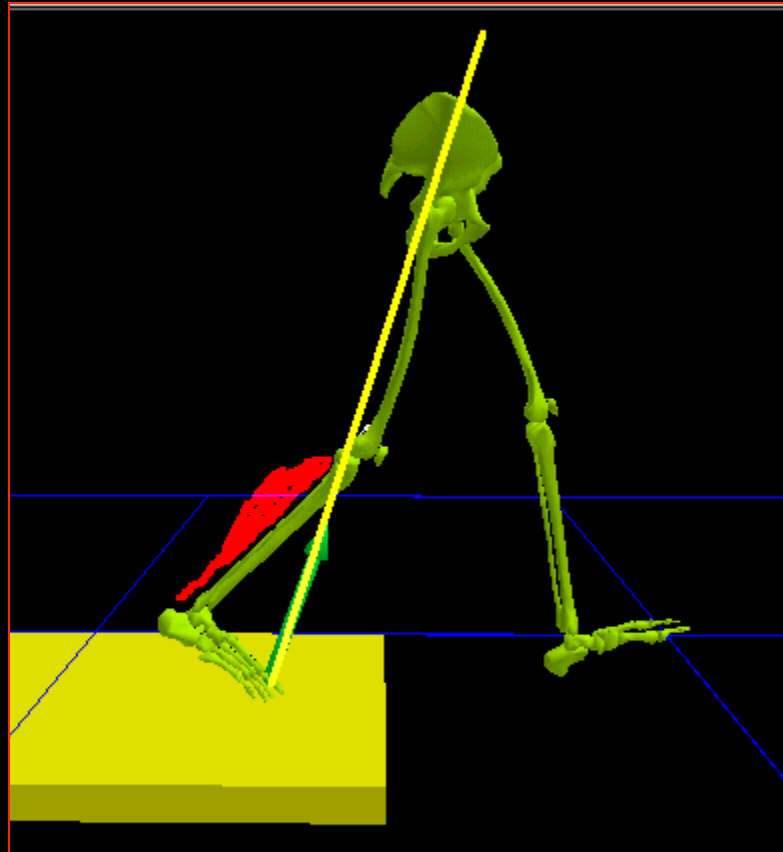
# INTERPRETATION FONCTIONNELLE GLOBALE



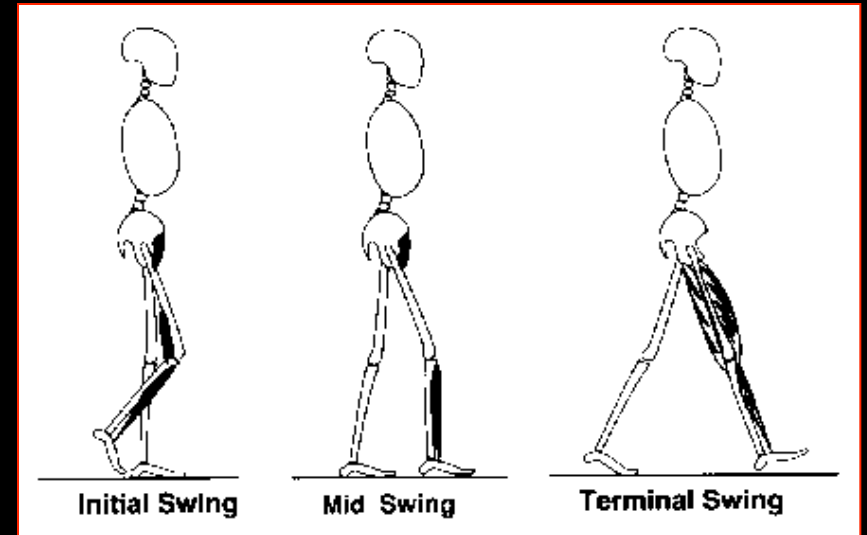
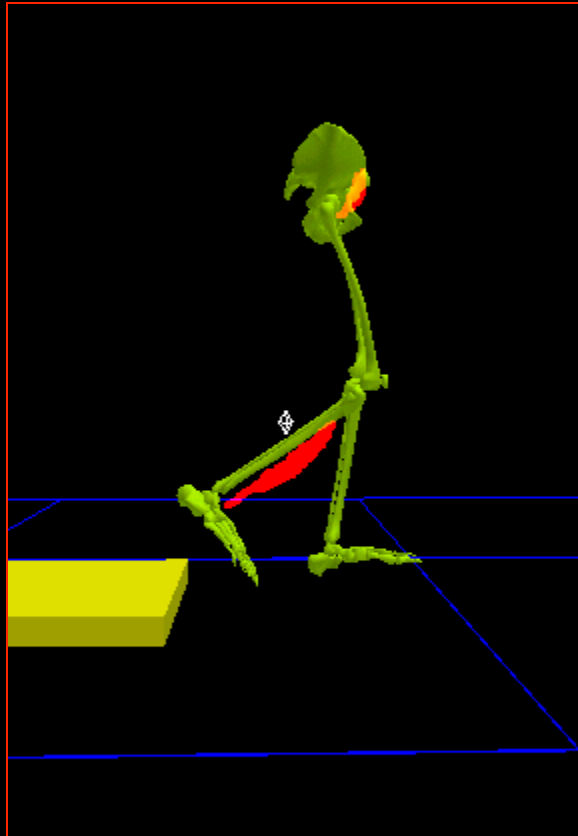
# INTERPRETATION FONCTIONNELLE GLOBALE



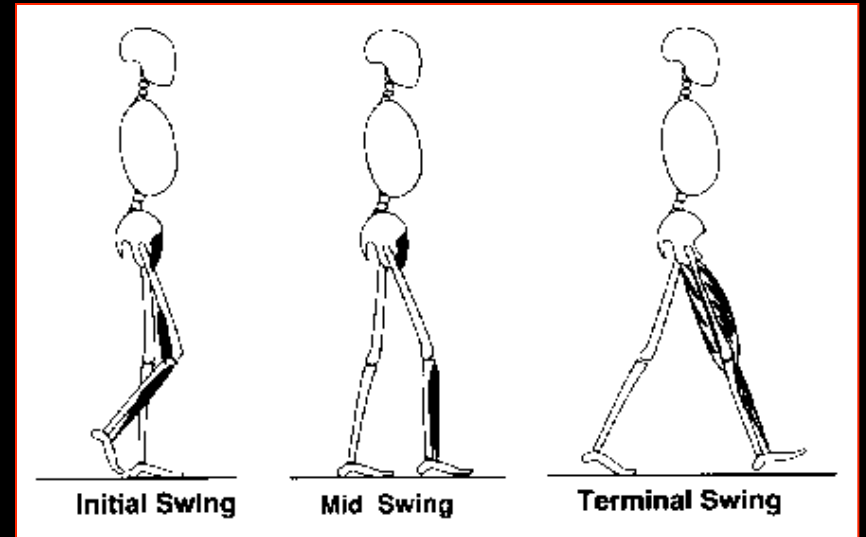
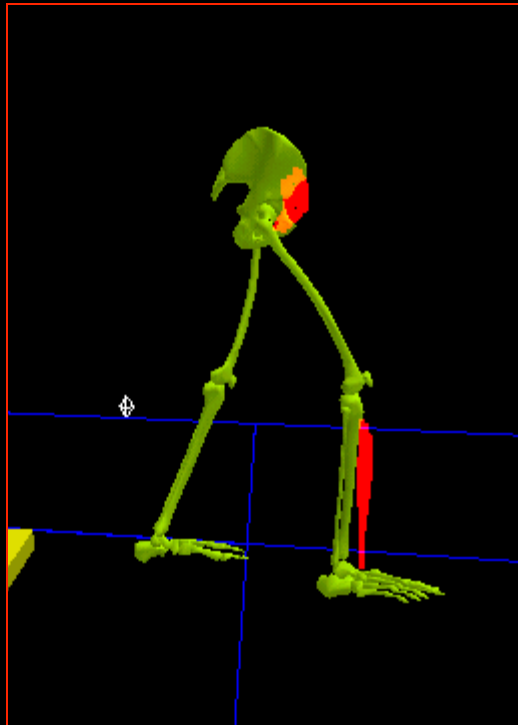
# INTERPRETATION FONCTIONNELLE GLOBALE



# INTERPRETATION FONCTIONNELLE GLOBALE



# INTERPRETATION FONCTIONNELLE GLOBALE





# INTERPRETATION FONCTIONNELLE GLOBALE

