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**Cours de Base sur Specimen**  
**Chirurgie mini-invasive**  
**et percutanée du pied**  
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Barcelone - Espagne

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Cours en français

# Technique chirurgicale du quintus varus

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# Chirurgie percutanée du 5<sup>ème</sup> rayon - Techniques



# Introduction

Bunionette

Quintus varus supradductus

Quintus varus infradductus



# Introduction



# Introduction

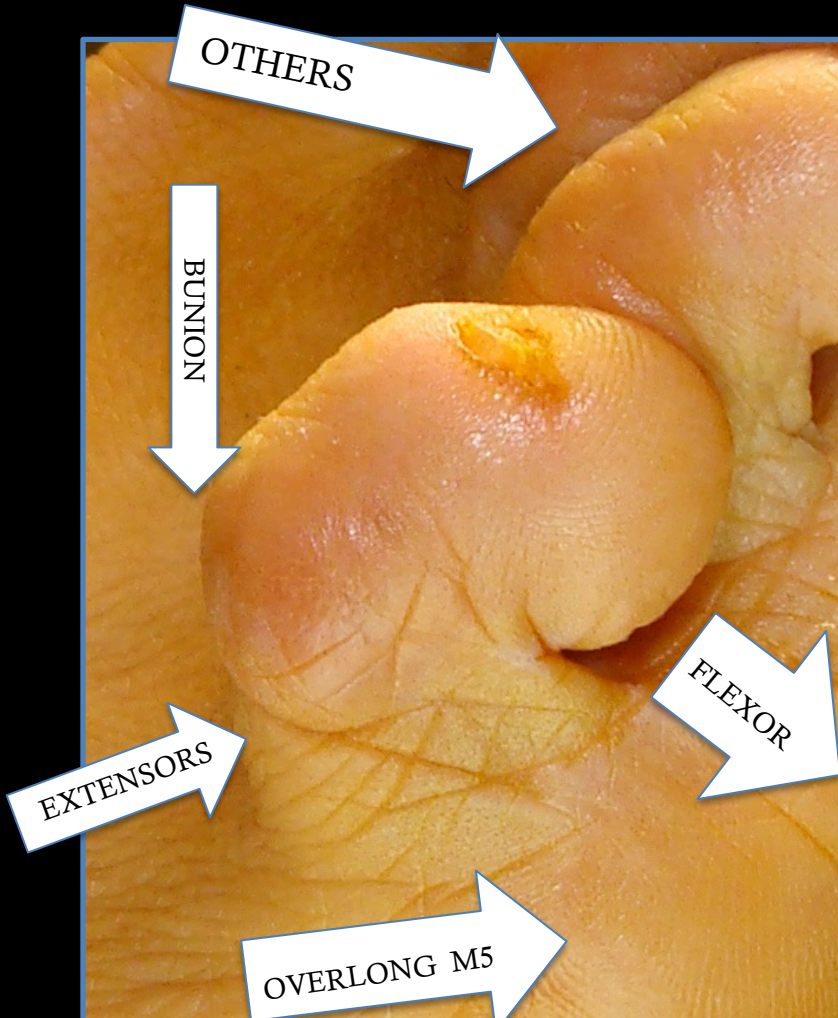


Prominence on the lateral edge of the forefoot (lateral condyle of M5 head), with or without a varus deviation of the fifth toe, which may be accompanied by a metatarsalgia under the fifth head or structural and / or positional abnormalities of the toe itself.

# Introduction



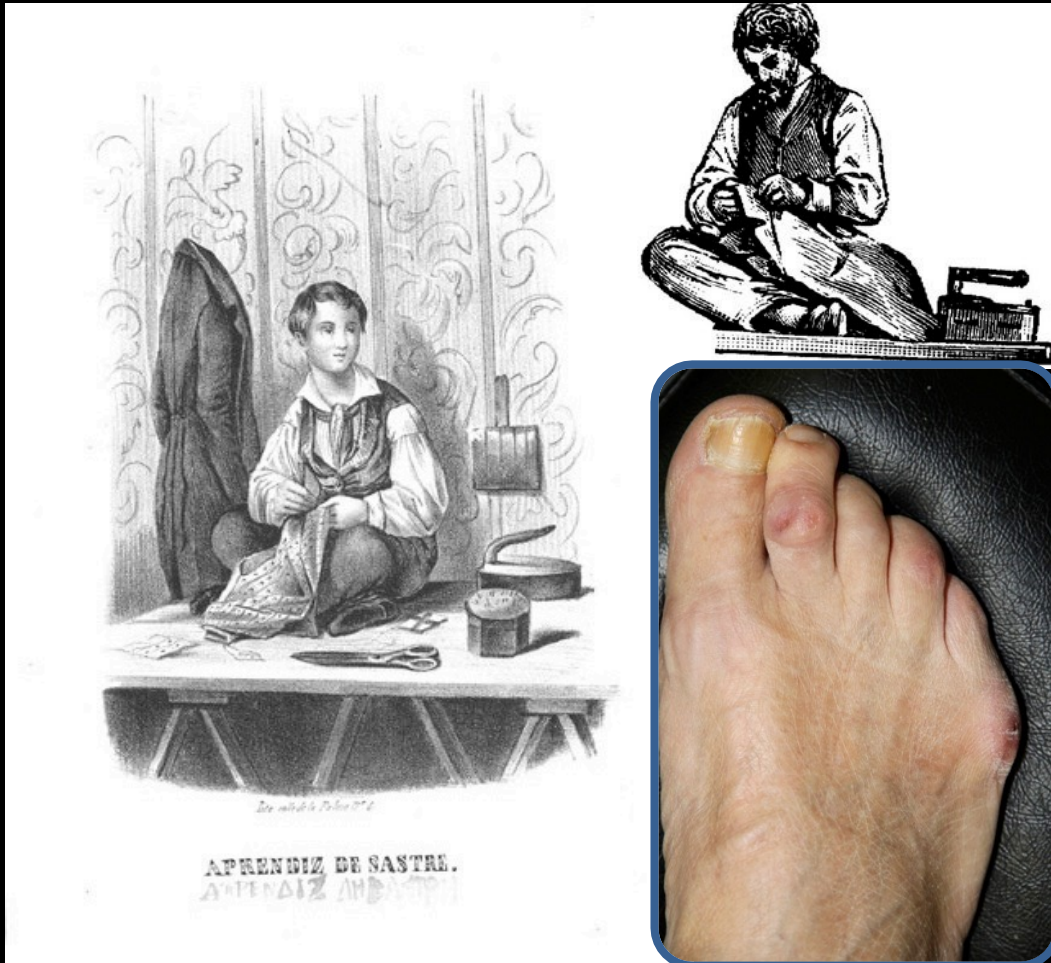
# Introduction



- Frequent
- Many clinical types
- Surgical treatment « à la carte »

# Introduction

## Tailor's bunion (bunionette)





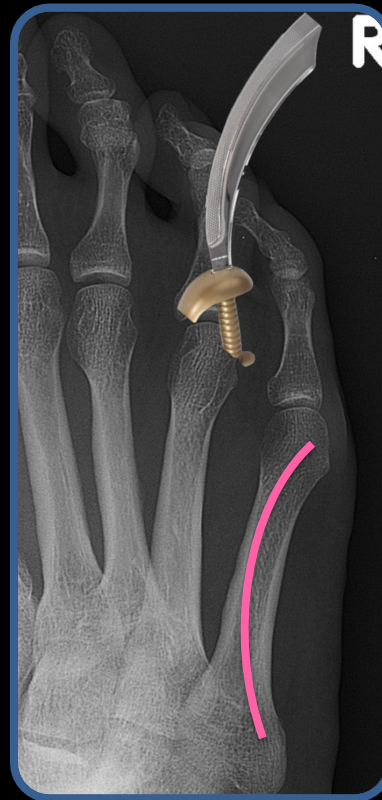
# X-rays

## Bunionette (quintus varus)

Type 1 16-33%

Type 2 < 10%

Type 3 57-74%



Coughlin, M.J. "Treatment of bunionette deformity with longitudinal diaphyseal osteotomy with distal soft tissue repair" *Foot Ankle*, 11: 195-203, 1991

# Physiopathology

## *Quintus varus supradductus*



# Physiopathology

## *Quintus varus infraductus*



# Physiopathology

*Claw or hammer toe*



# Physiopathology

*Wet corn*



# Surgical Treatment

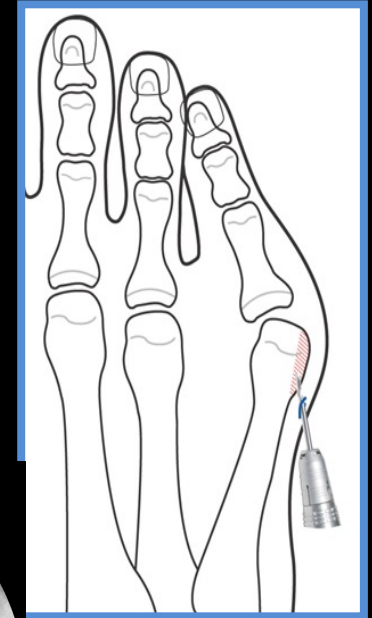


- Bone Gestures
  - ✓ *Bunionectomies M5, P1*
  - ✓ *Osteotomies M5, P1*
- Soft-tissues Gestures
  - ✓ *Tenotomies ext., flex.*
  - ✓ *Capsulotomies*



# Surgical Treatment

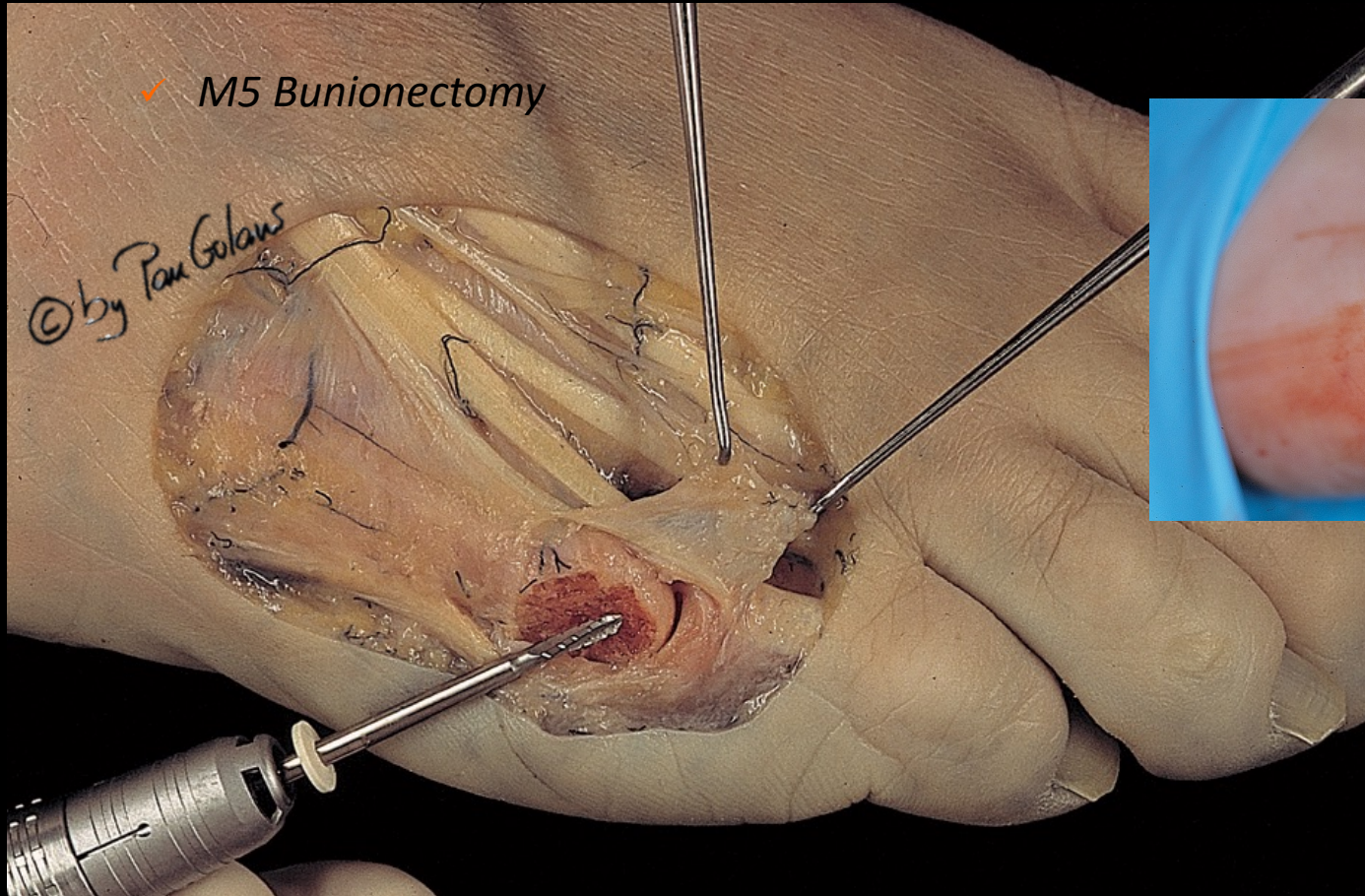
# Bone gestures



Hymes, L. *Forefoot minimal incision surgery in podiatric medicine*. Futura Publishing Company, New York, 1977

# Surgical Treatment

## *Bone gestures*



*Hymes, L. Forefoot minimal incision surgery in podiatric medicine. Futura Publishing Company, New York, 1977*



# Surgical Treatment

# *Bone gestures*



# Surgical Treatment

## *Bone gestures*

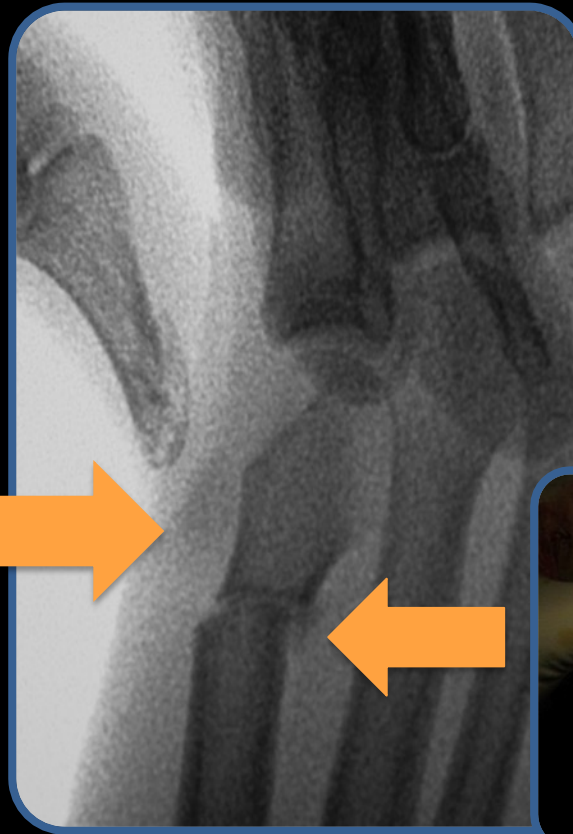


- FUNDAMENTAL gesture
- Precise level in relation with type of deformity
  - ✓ Neck
  - ✓ Distal 1/3
  - ✓ Proximal
  - ✓ Double
- Complete or preserving the lateral cortex



# Surgical Treatment *Bone gestures*

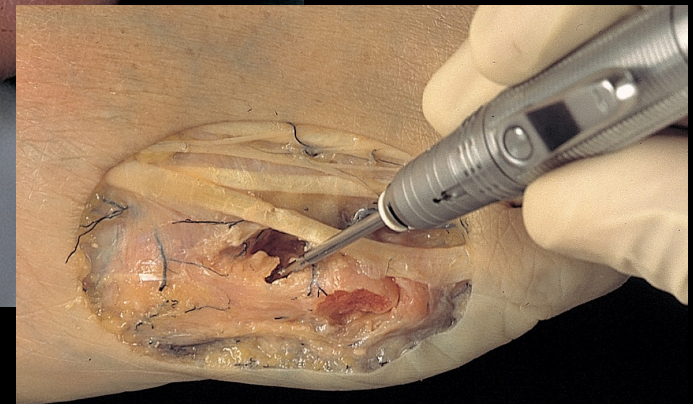
✓ *M5 osteotomy*



*White, D.L. Minimal incision approach to osteotomies of the lesser metatarsal: For treatment for intractable keratosis, metatarsalgia, and Tailor's bunion. Clin Podiatr Med Surg, 8: 25-40, 1991*

# Surgical Treatment

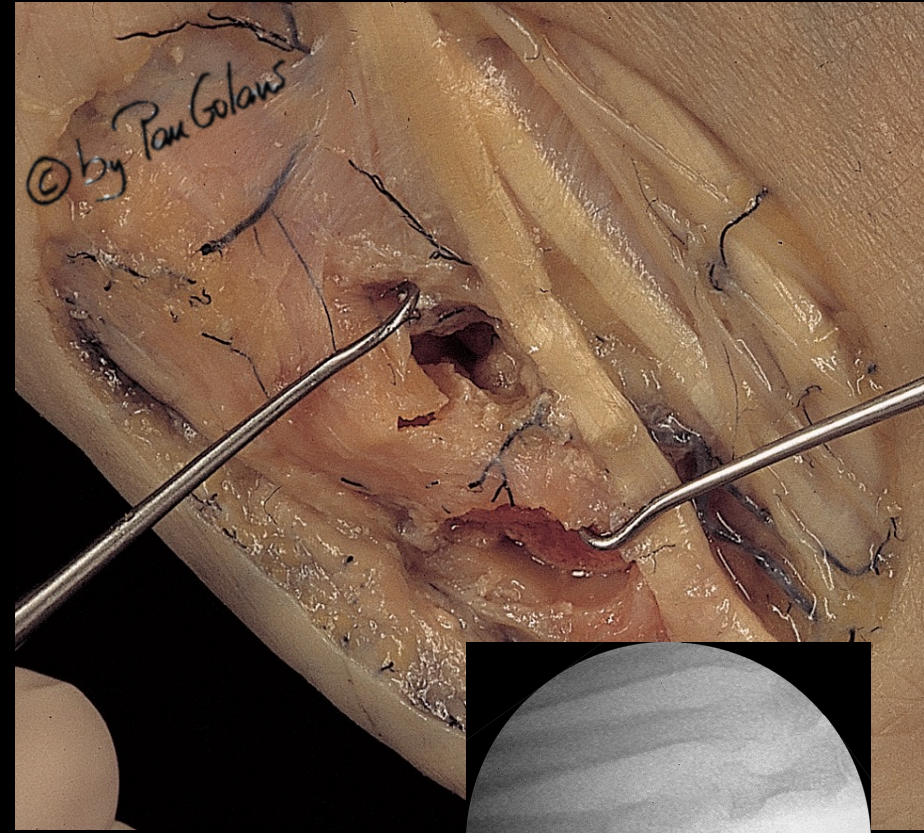
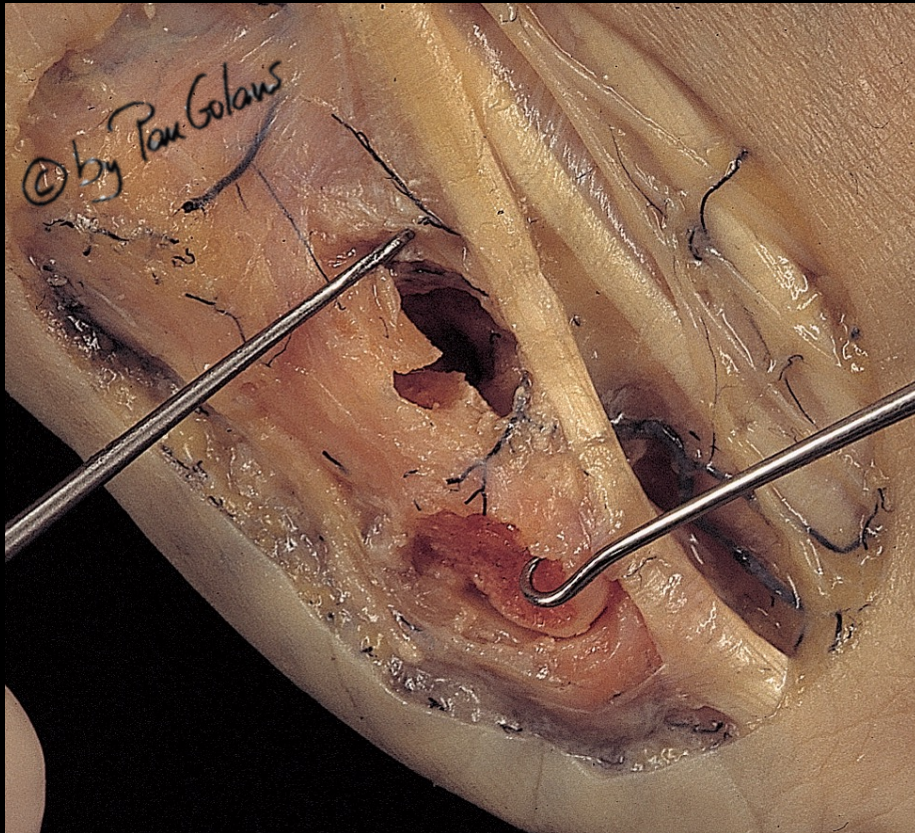
## *Bone gestures*



# Surgical Treatment

## *Bone gestures*

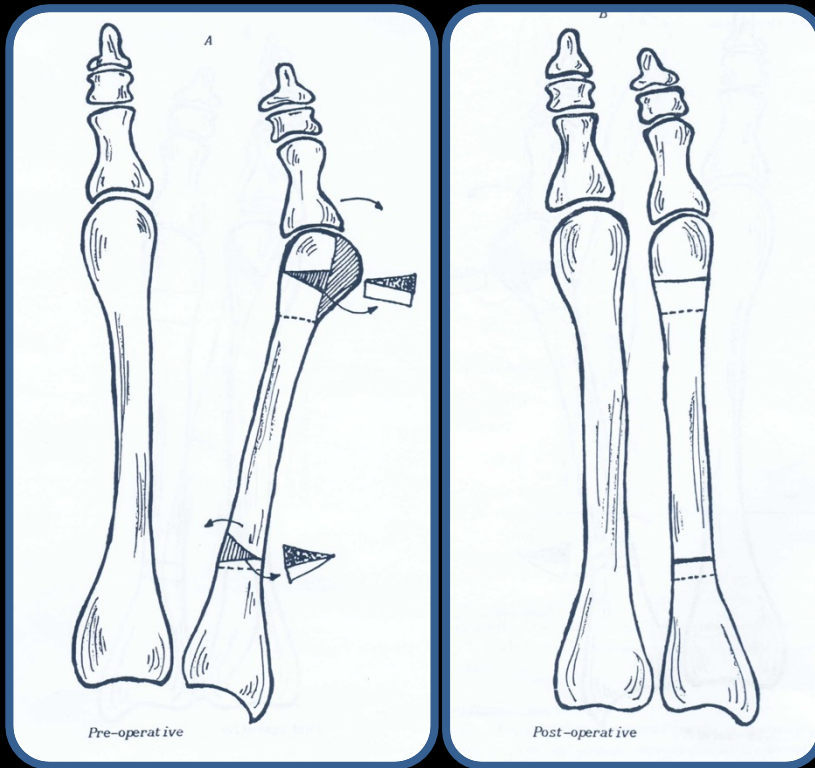
✓ M5 osteotomy



# Surgical Treatment

## *Bone gestures*

✓ M5 osteotomy

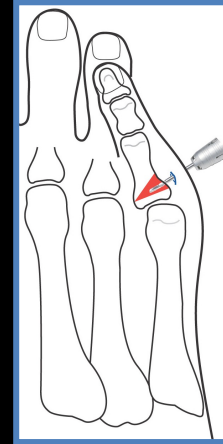


*Isham, S. The Isham Bunionette Procedure for the correction of moderate to severe Taylor's bunion deformities. Clin Podiatr Med Surg, 1: 1-22, 1996*

# Surgical Treatment

## *Bone gestures*

✓ P1 osteotomy



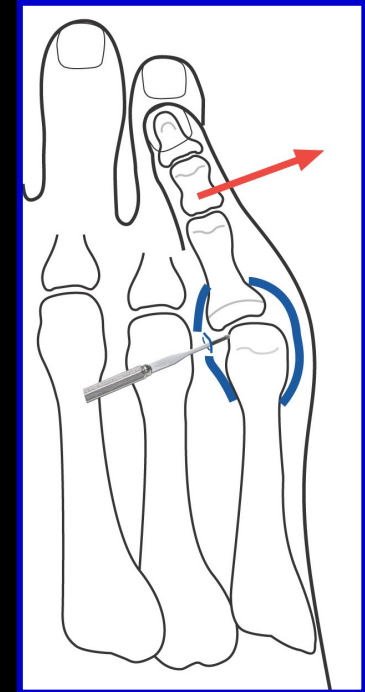
- FREQUENT
- Basal
- Optimizes the anatomical relationship between T4 & T5
- Complete or preserving the medial cortex



# Surgical Treatment

## *Soft-tissues gestures*

✓ *Capsulotomy*





# Surgical Treatment

## *Soft-tissues gestures*

✓ *Extensors tenotomy*



# Surgical Treatment

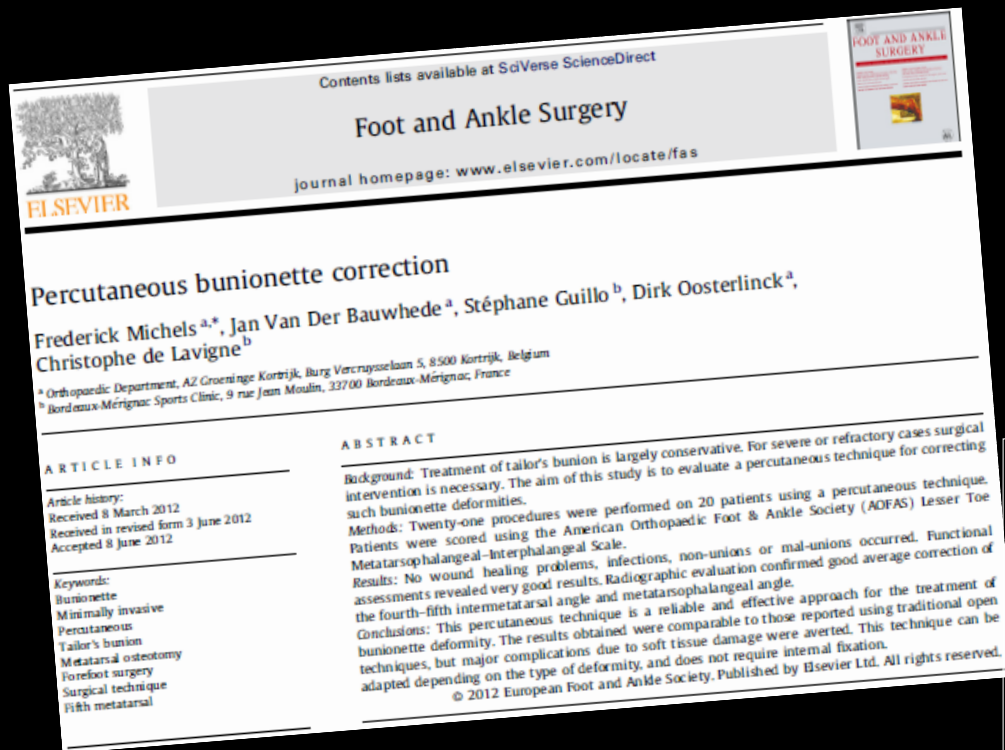
## *Soft-tissues gestures*

- ✓ *Longus flexor tenotomy*



# Results

- The BEST percutaneous technique in forefoot surgery
  - ✓ Patients' enthusiasm
  - ✓ Published results



O.Laffenêtre, B.Millet-Barbé, V.Darcel, J.Lucas, D.Chauveaux. *Traitement chirurgical percutané de la bunionette : résultats d'une étude rétrospective multicentrique de 49 cas au recul moyen de 34 mois*  
Monographie AFCP, 9, Ed Sauramps 2013, in press

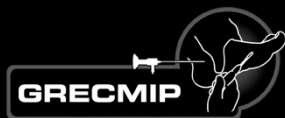
# Results



# Results



- Even in the most difficult cases
  - ✓ *No osteosynthesis*
  - ✓ *Scars near zero*

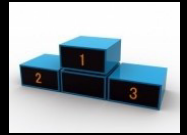


# Résultats



- Even in the most difficult cases
  - ✓ *No osteosynthesis*
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# Results

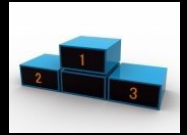


- Single operator – independent reviewer with a 34 month FU (+/-22)
- 37 patients – 49 feet – 50 years (+/-19) without any patient lost to follow up
  - ✓ 40 feet CHU Bordeaux
  - ✓ 9 feet ICP Paris
- 13 patients were operated on both feet
- Associated gestures in 43%
- 100% day care procedure with LRA

Technical gesture	Nb of patients
M5 osteotomy	49
Lateral condylectomy	37
Extensors tenotomies	9
Plantar longus flexor tenotomy	11
Selective medial arthrolysis	38
Proximal phalanx osteotomy (plantar)	6
Proximal phalanx osteotomy (dorsal)	33

*O.Laffenêtre, B.Millet-Barbé, V.Darcel, J.Lucas, D.Chauveaux. Traitement chirurgical percutané de la bunionette : résultats d'une étude rétrospective multicentrique de 49 cas au recul moyen de 34 mois Monographie AFCP, 9, Ed Sauramps 2013, 9p*

# Results



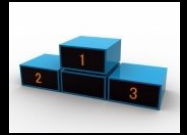
	Pre operative	Max FU
EVA	8	0,3★
AOFAS scale	58	97★
Total ROM	90.5°	93.67°
Dorsal flexion of T5	67.44°	69.69°
Plantar flexion of T5	23.06°	23.97°
IMA (M4M5)	9.98°	5.51° ★
Varus angle (M5P1)	16.24°	4.26° ★

★ Statistically significant values  $p < 0,05$

*O.Laffenêtre, B.Millet-Barbé, V.Darcel, J.Lucas, D.Chauveaux. Traitement chirurgical percutané de la bunionette : résultats d'une étude rétrospective multicentrique de 49 cas au recul moyen de 34 mois Monographie AFCP, 9, Ed Sauramps 2013, 9p*



# Results



- **Complications :**
  - ✓ 1 CRPS without any sequela
  - ✓ 1 delayed healing (simultaneous metatarsal osteotomies)
- **97%** of satisfied or very satisfied patients
- 100% of correction of the pre operative deformity
- The pre operative callus always disappeared when it was present

*O.Laffenêtre, B.Millet-Barbé, V.Darcel, J.Lucas, D.Chauveaux. **Traitement chirurgical percutané de la bunionette : résultats d'une étude rétrospective multicentrique de 49 cas au recul moyen de 34 mois** Monographie AFCP, 9, Ed Sauramps 2013, 9p*

# Conclusion



- The use of the percutaneous tool is efficient and reliable.
- Excellent results without any complications
- Real assets :
  - ✓ « à la carte » surgery
  - ✓ Simple elementary gestures
  - ✓ Day care procedure
  - ✓ No or little post operative pain
  - ✓ Excellent cosmetic aspect
  - ✓ No osteosynthesis



GOLD STANDARD IN PERCUTANEOUS SURGERY