

Hôpitaux de Lyon
UNIVERSITÉ Claude-Bernard-Lyon
LYON GENOU CENTRE DE RECHERCHE TRILAT

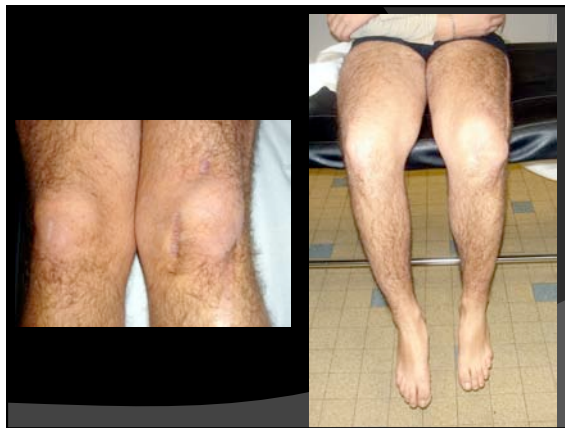
Patellofemoral disorders

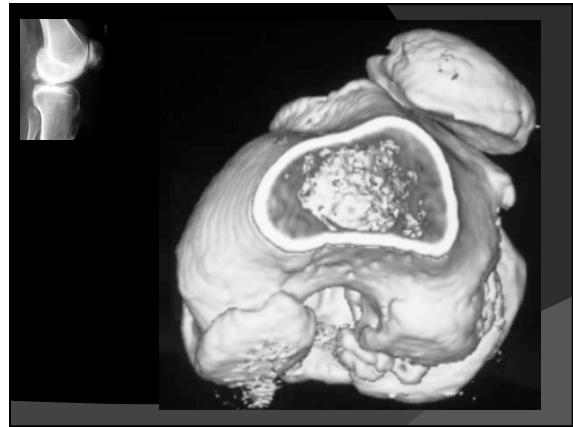
Classification and... Terminology

Professor Philippe Neyret
E Servien
S Lustig
G Demey

ESSKA 2000

Lyon France





A Trillat H Dejour G Walch



Ledeuil Thesis 1959




1987



- One or more P. dislocations
- No Symptom

D Fithian, Ph Neyret, E Servien
Patella instability: The Lyon experience
Techniques Knee Surgery, 2007, 6,112-123

- Episodic Patellar Dislocation
- Control Group



Dejour H, Walch G, Neyret P, Adeleine P
Trochlea dysplasia, Rev Chir Orthop 1990, 76 : 45-54

- Morphological Abnormalities
- Control Group

Morphological abnormalities in Episodic Patellar Dislocations

> TROCHLEAR DYSPLASIA

1. Patella alta
2. TTTG > 20 mm
3. Tilt > 20°

- Recurvatum
- Valgus
- Fem antetorsion
- Female

TROCHLEAR DYSPLASIA

- ➡ Crossing sign
- ➡ Trochlear bump

• Normal Trochlea

• Trochlear dysplasia

X-Rays

• Trochlear dysplasia

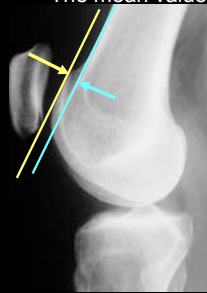
The crossing sign is present in 96% of cases in Episodic Patellar Dislocation group... and only 3% of the control group

• Trochlear dysplasia

The bump or boss or prominence is defined by the distance between the tangent to the anterior cortex femur and the parallel passing through the most anterior point of the trochlea groove

• Trochlear dysplasia

The mean value of the prominence is 3.2 mm in the Episodic Patellar Dislocation group and - 0.8mm in the control group

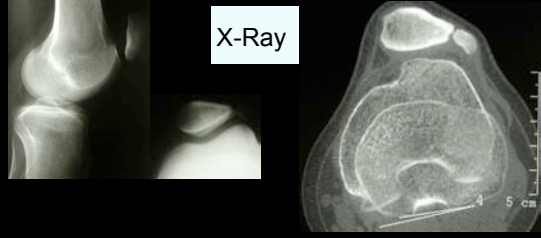


Threshold Normal < 3mm

• Trochlear dysplasia

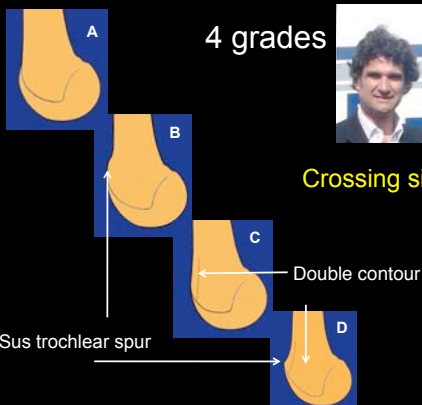
CT-Scan

X-Ray



Tecklenburg K, Dejour D, Hoser C, Fink C
Bony and cartilaginous anatomy of the patellofemoral joint
KSSA, 2006,14, 235-240

4 grades

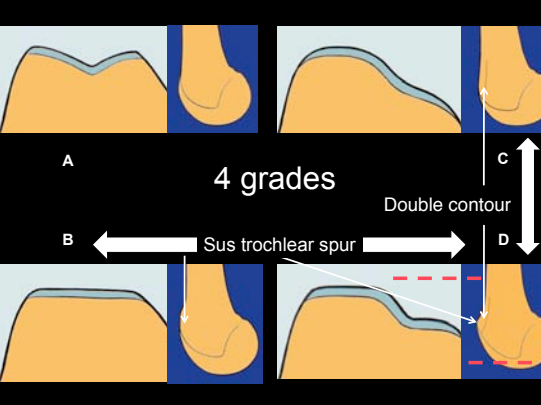


Crossing sign

Double contour

Sus trochlear spur

4 grades



Double contour

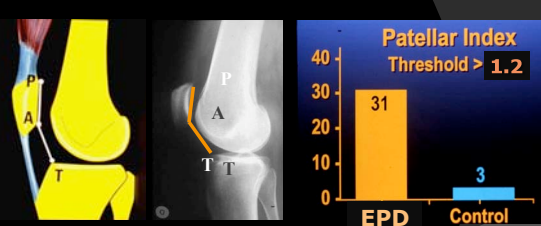
Sus trochlear spur

3
Principal Factors

- ➔ Patellar height
- ➔ TT-TG
- ➔ Patellar tilt

Threshold

Patella alta > 1.2



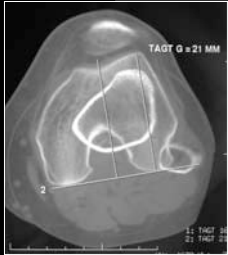
Patellar Index
Threshold > 1.2

Group	Patellar Index
EPD	31
Control	3

Caton & Deschamps Index
AT/AP

TT.GT > 20 mm

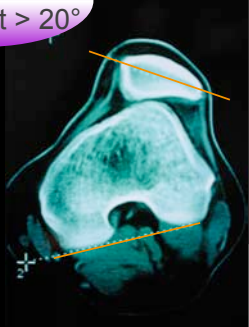
EPD	Control
19.8mm	12.7mm
56%	3%



Goutallier D, Bernageau J, Lecudonne C B. Mesure de l'écart tubérosité tibiale antérieure - gorge de la trochlée : TA-GT Rev. Chir. Orthop. (1978) 64 : 423-428

Patella tilt > 20°

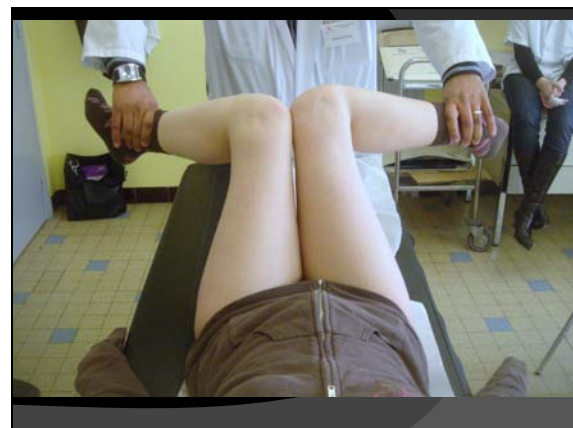
EPD	Control
31.5°	10°
90%	3%



4
Secondary Factors

- ➔ F. Antetorsion
- ➔ G. Recurvatum
- ➔ G. Valgum
- ➔ Female

No Threshold



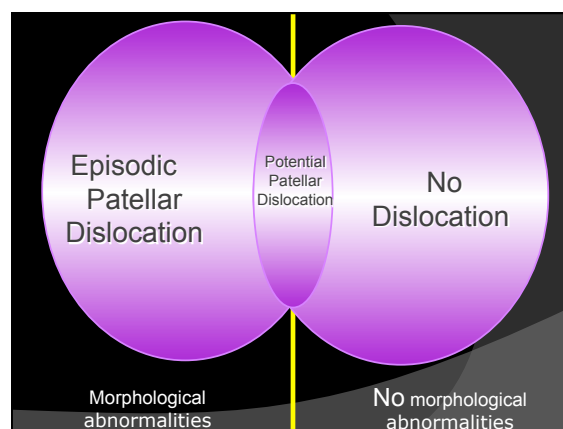
Clinical Sciences

Neyret P, Robinson AHN, ..., Chambat P
 Patellar tendon length – the factor in patellar instability ?
 The Knee 2002

Servien E, Ait Siselmi T, Neyret P
 Study of the patellar apex in objective patellar dislocation.
 Rev Chir Orthop 2003, 89, 605-612

Escala J, Mellado J, Olona M, Giné J, Sauri A, Neyret P
 Objective patellar instability: MR-based quantitative
 assessment of potentially associated anatomical features
 KSSA 2006, 4, 264-272

Servien E, Verdonk P, Neyret P
 Tibial tuberosity transfer for episodic patellar dislocation
 Sports Med Arthrosc Rev, 2007, 98, 364-372



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 Advanced Course on Knee Arthroplasty
 3-9 knee function

LYON 2010
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Axis
 DESIGN
 future
 function

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Thank You,
 Francois, Philippe...
 and good luck in Doha!

ESSKA 2000
 SOCIÉTÉ INTERNATIONALE DE RHÉSCOPIE, KNEE SURGERY & ORTHOPÉDIQUE SPORTS MEDICINE - 1999 - 1999

University of Lyon