ORTOPEDIA NOS TEMPOS MODERNOS

- Novos diagnósticos
- Inovação tecnológica nos (bio)materias
- “Skils” cirúrgicas

Drª Rita Proença
Dr Germano Nascimento
Serviço de Ortopedia – SESARAM
Diretor de Serviço – Dr França Gomes

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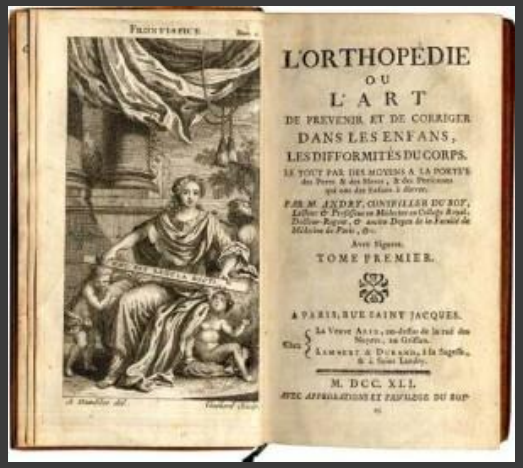
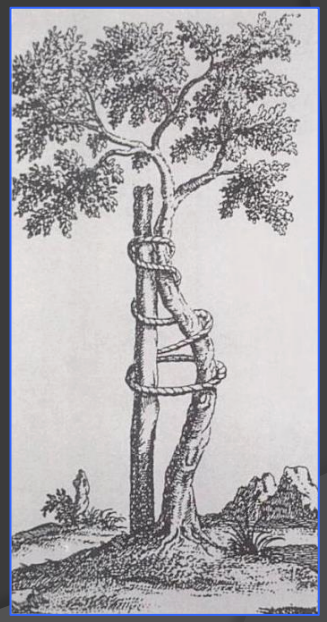
- 1ª publicação subordinada ao tema Ortopedia (Orthopedia: orthos = “reto e sem deformidade” + paidion = “criança”) em 1741 por Nicholas Andry, professor de Medicina da Universidade de Paris


L'ORTHOPÉDIE
OU
L'ART
DE PREVENIR ET DE CORRIGER
DANS LES ENFANS,
LES DIFFORMITÉS DU CORPS.
TOME PREMIER.
A PARIS, RUE SAINT JACQUES.
M. DCC. XLI.



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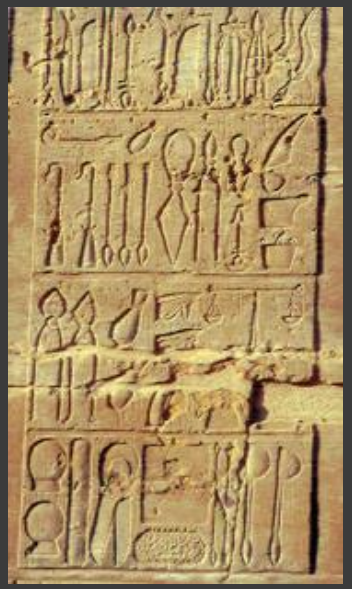
- Evidência história de imobilização de fraturas em povos desde AC (peles curtidas, barro, bambu);



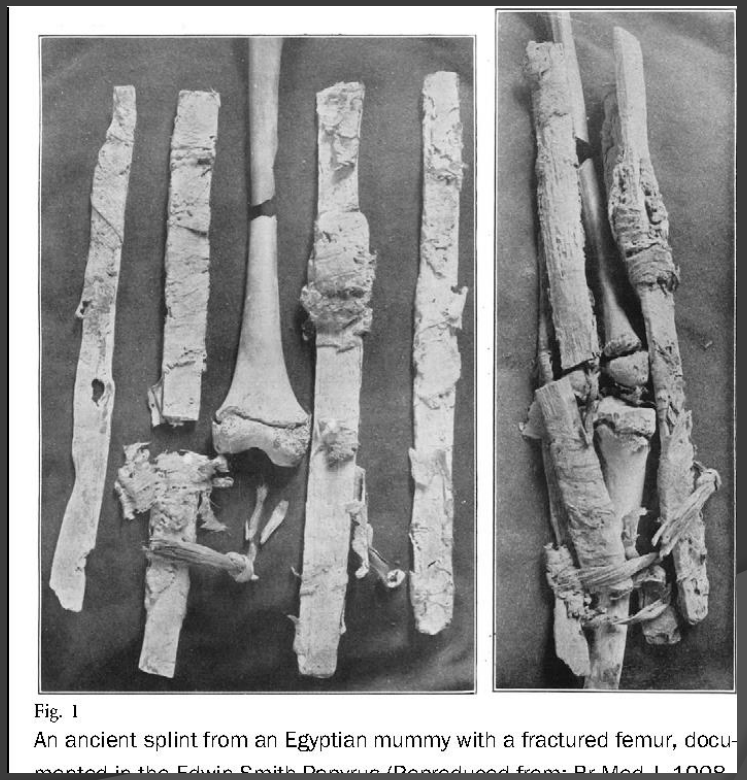


Fig. 1
An ancient splint from an Egyptian mummy with a fractured femur, docu-

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- Invenção do rx em 1895 – Wilhelm Conrad Rontgen
- I e II Grandes Guerras: catalisadores da traumatologia (cuidados de feridas, amputações, fixação interna de fraturas)
- 1ª artroplastia da anca em 1942 – Austin Moore

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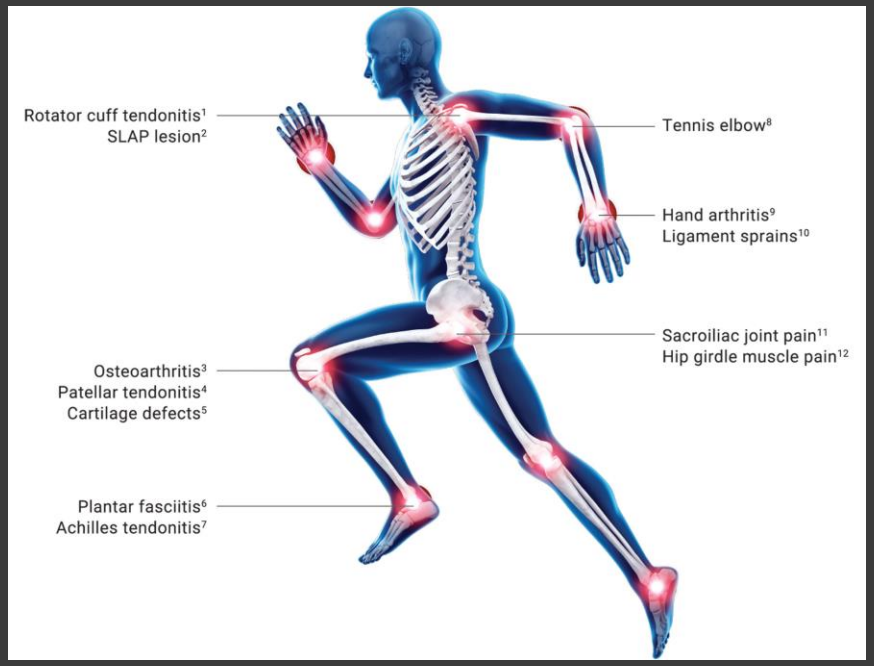
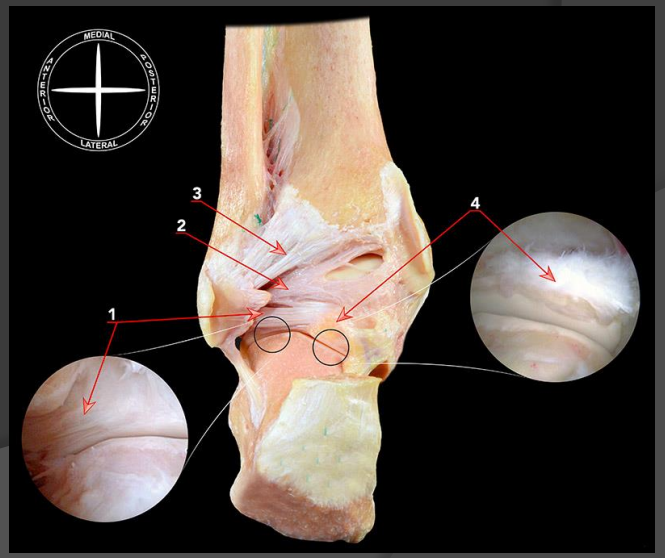


<u>Crescimento de Diagnósticos</u>

- **Anatomia**
- **Biomecânica**
- **ECD (RMN)**

- **Medicina Desportiva** (Alto Rendimento)



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BIOMATERIAS (todo o material que entrando em contato com sistemas orgânicos, e de forma temporária ou definitiva, estabelece interação com sistemas biológicos)

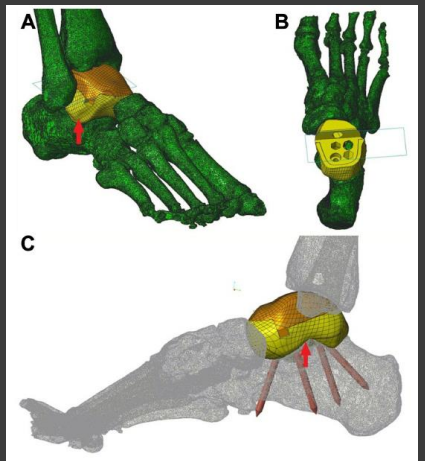
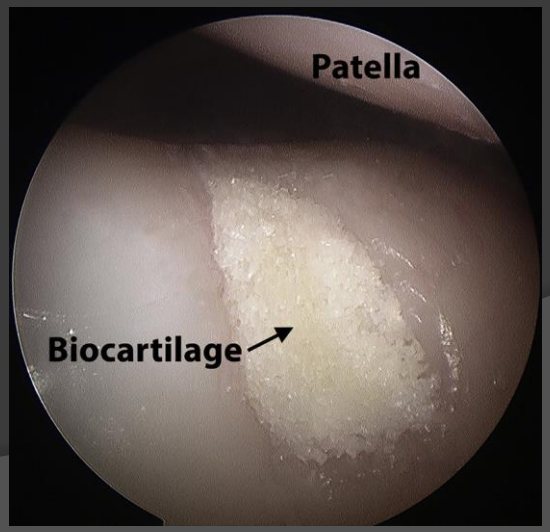


Figure 2 The prosthesis design.
Notes: (**A**) Anterolateral view of the installed prosthesis, with the sinus tarsi completely filled (red arrow). (**B**) Top view of the lower modular component of the prosthesis placed on the calcaneus. Pre-drilled holes for screws can be seen. (**C**) Mediolateral view of the installed prosthesis showing the direction of the screw fixation (not the length of screws). The sinus tarsi is completely filled (red arrow).



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NOVOS DIAGNÓSTICOS

Mudar o rumo:

Procurar para além da fratura aguda e patologia degenerativa

Tratar a população jovem: tratar a lesão numa fase evolutiva mais precoce e assim minimizar as sequelas subsequentes

PASSADO – PRESENTE - FUTURO

NOVOS DIAGNÓSTICOS

Pé Plano Valgo do Adulto

Sequela infantil – pé planovalgo flexível, barra társica, astrágalo vertical, navicular acessório

Adquirido - Disfunção do Tibial Posterior, consolidação viciosa de fratura do calcâneo

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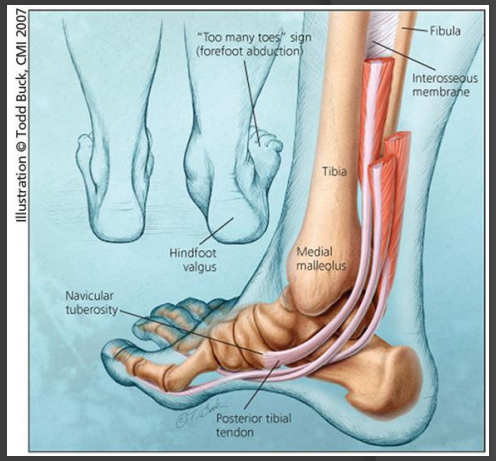
NOVOS DIAGNÓSTICOS

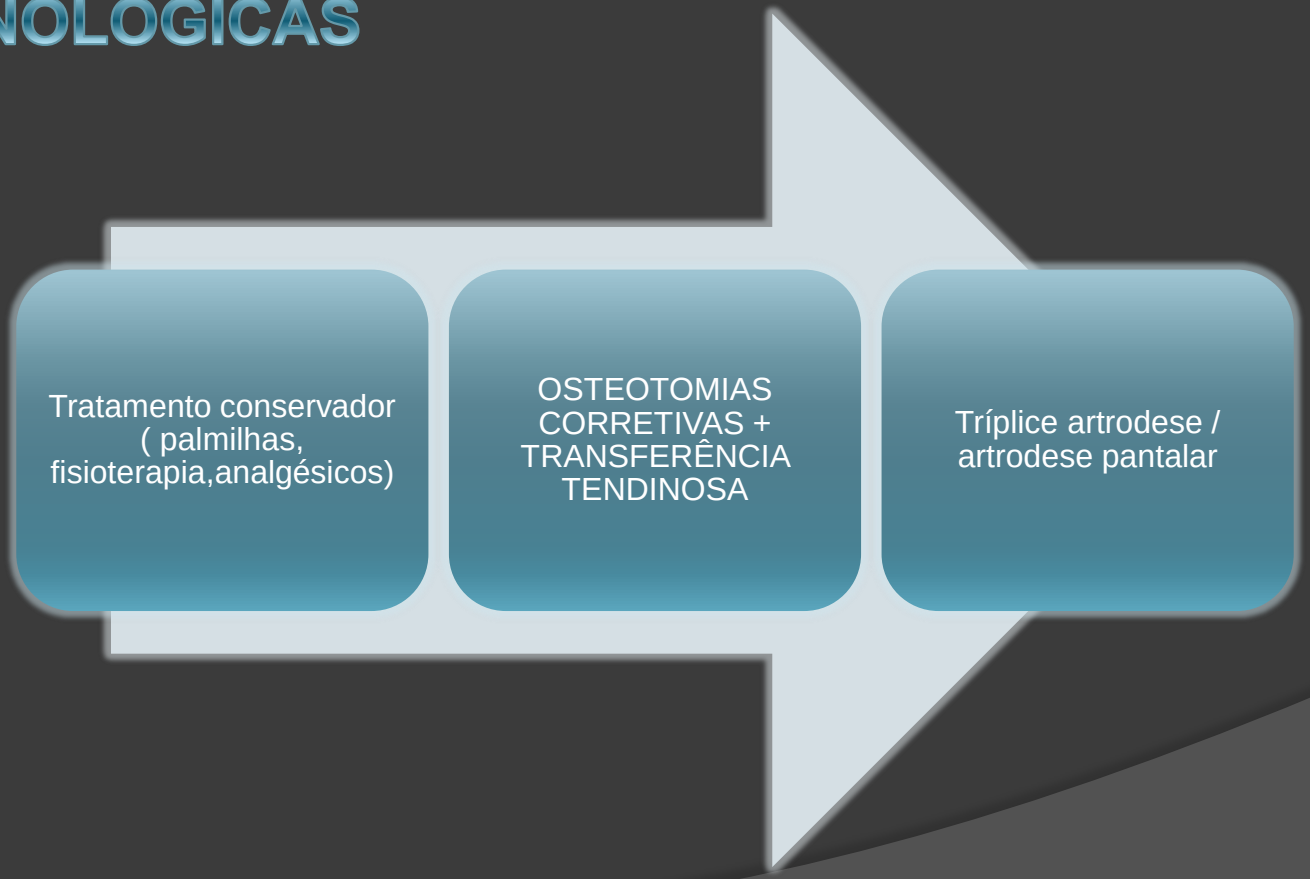


Adult-Acquired Flatfoot Deformity
Jensen K. Henry, MD, Rachel Shakked, MD, Scott J. Ellis, MD
First Published January 16, 2019 Review Article - Foot&Ankle Orthopaedics

Adult-acquired flatfoot deformity (AAFD) comprises a wide spectrum of ligament and tendon failures, resulting in significant deformity and disability. Although there are no large-scale epidemiological studies, reported rates are **>3% in women over the age of 40 years and >10% of all adults over the age of 65 years.**

PASSADO – PRESENTE - FUTURO

NOVOS DIAGNÓSTICOS / INOVAÇÕES TECNOLÓGICAS



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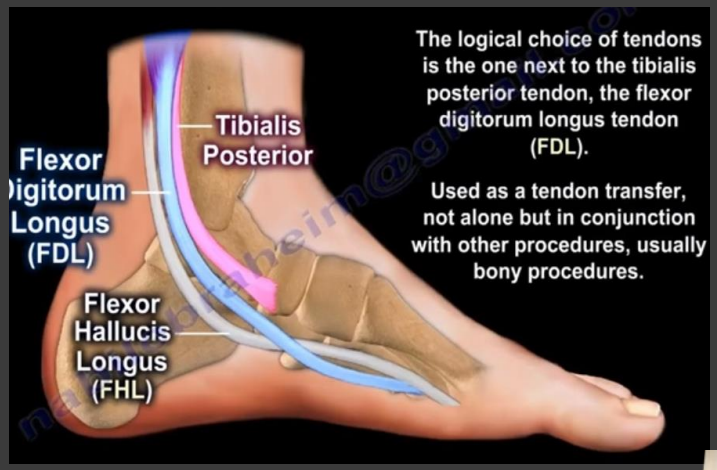
NOVOS DIAGNÓSTICOS / INOVAÇÕES TECNOLÓGICAS



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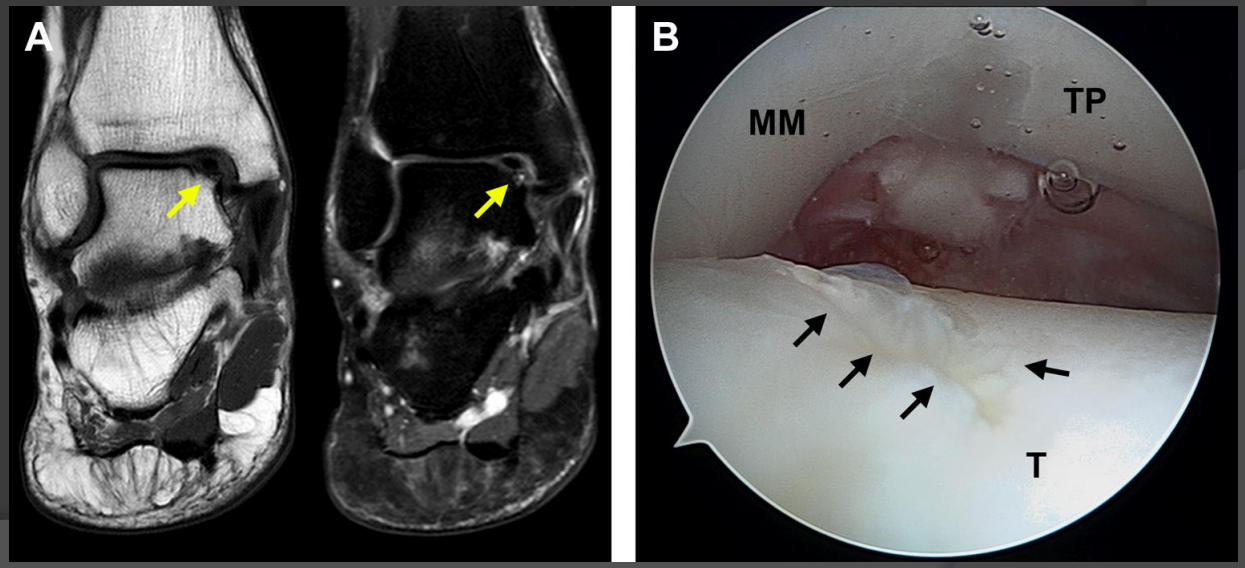
NOVOS DIAGNÓSTICOS

Lesões osteocondrais talares

Etiologia maioritariamente traumática
Tratamento difícil devido à precariedade regional da vascularização talar e zona de carga em que se localizam



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NOVOS DIAGNÓSTICOS

Osteochondral Lesions of the Talus: Current Concepts in Diagnosis and Treatment
John R. Steele, MD, Travis J. Dekker, MD, Andrew E. Federer, MD,
First Published July 27, 2018 Review Article – Foot&Ankle Orthopaedics

Osteochondral lesions of the talus (OLTs) are lesions of the articular cartilage of the talus and underlying subchondral bone. As such, the term encompasses a variety of pathologies, including: osteochondritis dissecans, osteochondral defects, and osteochondral fractures. **Trauma accounts for the majority of OLTs, with an OLT occurring with over half of ankle sprains and a larger percentage of ankle fractures**.[44,61] Given the large number of ankle injuries with potential for cartilage injury, OLTs are an important problem, and adequate treatment is necessary to reduce morbidity and allow patients to return to sport or activities of daily living.

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NOVOS DIAGNÓSTICOS / INOVAÇÕES TECNOLÓGICAS

Artroscopia do tornozelo: diagnóstico e tratamento

Desbridamento da lesão e microfraturas

Placas de colagénio/biocartilagem/ transplante condrócitos (ACI)

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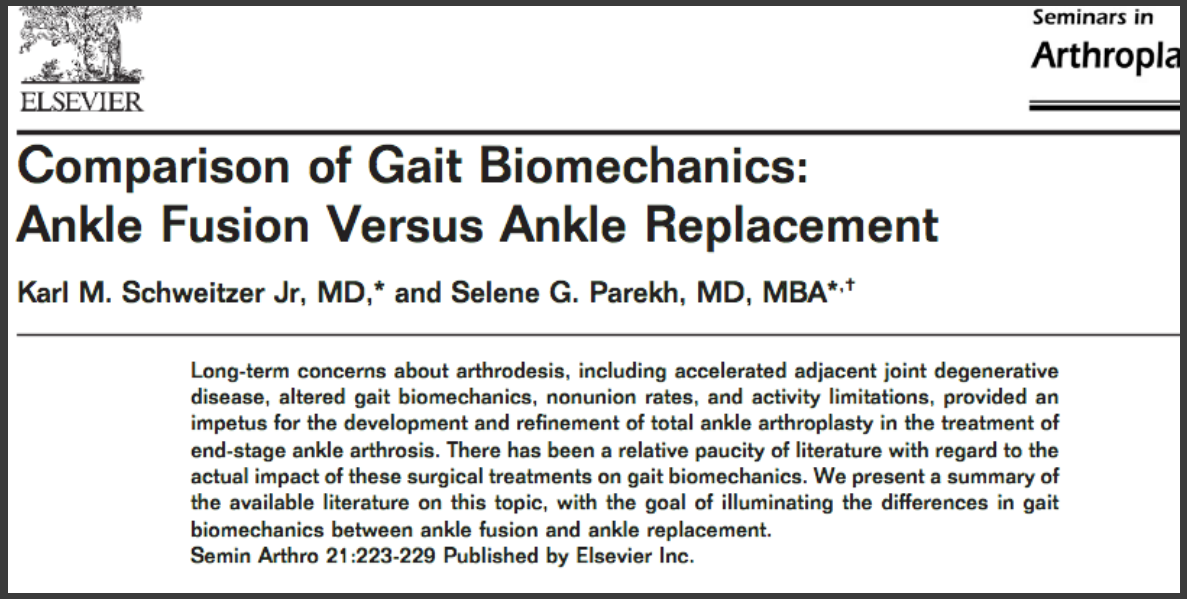
INOVAÇÕES TECNOLÓGICAS / SKILLS CIRÚRGICAS

- **Artroplastia Total do Tornozelo**



ELSEVIER

Seminars in Arthropla

Comparison of Gait Biomechanics: Ankle Fusion Versus Ankle Replacement

Karl M. Schweitzer Jr, MD,* and Selene G. Parekh, MD, MBA*,†

Long-term concerns about arthrodesis, including accelerated adjacent joint degenerative disease, altered gait biomechanics, nonunion rates, and activity limitations, provided an impetus for the development and refinement of total ankle arthroplasty in the treatment of end-stage ankle arthrosis. There has been a relative paucity of literature with regard to the actual impact of these surgical treatments on gait biomechanics. We present a summary of the available literature on this topic, with the goal of illuminating the differences in gait biomechanics between ankle fusion and ankle replacement.

Semin Arthro 21:223-229 Published by Elsevier Inc.

"Ankle replacement patients exibit a fairly symmetric gait, while ankle fusion patients require significant compensatory mechanisms to obtain a steady, symmetric gait, including increased midfoot jointmotion as well as increased range of motion of the ipsilateral knee. "

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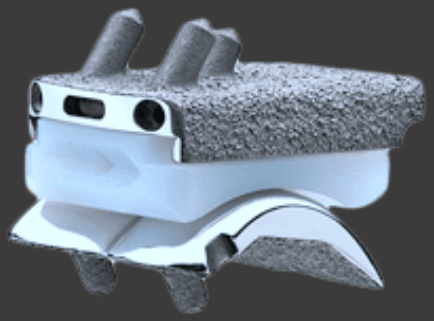
INOVAÇÕES TECNOLÓGICAS / SKILLS CIRÚRGICAS

- **Artroplastia Total do Tornozelo**

INFINITY™
TOTAL ANKLE SYSTEM



4ª Geração

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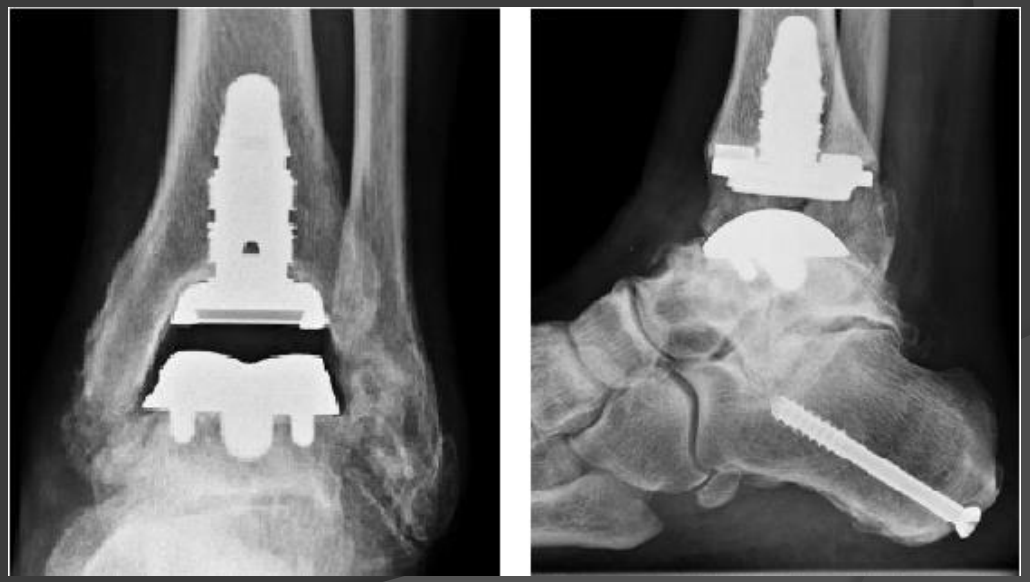
INOVAÇÕES TECNOLÓGICAS / SKILLS CIRÚRGICAS

- **Artroplastia Total do Tornozelo**

PASSADO – PRESENTE - FUTURO

INOVAÇÕES TECNOLÓGICAS / SKILLS CIRÚRGICAS

- **Artroplastia Total do Tornozelo** – Cirurgia de Revisão



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Serial no	Author	Type of study	Prosthesis	Sample size	Survival
1	Roukis 2012[13]	Systematic review	Agility	2312	90.3% at 22.6 mths
2	Raikin et al 2017[14]	Case series	Agility	107	80% at 9 yrs
3	Buechel et al 2003[15]	Case series	Buechel-Pappas	50	93.5% at 10 yrs
4	Giovanni et al 2006[16]	Case series	Buechel-Pappas	31	93% at 8.3 yrs
5	Barg et al 2013[17]	Case series	Hintegra	684	84% at 10 yrs
6	Choi et al 2013[18]	Comparative case series	Hintegra	32	87.5% at 53 mths
			Mobility	35	97.1% at 34 mths

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7	Wood et al 2010[19]	Case series	Mobility	100	93.6% at 4 yrs
8	Muir et al 2013[20]	Case series	Mobility	125	94.4% at 4 yrs
9	Bonnin et al 2011[21]	Case series	Salto	85	85% at 10 yrs
10	Schweitzer et al 2013[22]	Case series	Salto Talaris	67	96% at 2.8 yrs
11	Brunner et al 2013[25]	Case series	Link STAR (uncemented)	77	70.7% at 10 yrs
12	Zhao et al 2011[26]	Meta-analysis	Link STAR (uncemented)	2088	71.1% at 10 yrs