

## CURRICULUM VITAE

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**Qualifica attuale:**

Professore Straordinario Malattie dell'Apparato Locomotore  
Facoltà di Scienze Motorie  
Universita' di Bologna

**Data di Nascita:**

3 Agosto, 1959

**Studi Universitari:**

Bologna, Facoltà di Medicina e Chirurgia, 1978-1984  
Scuola di Specialità di Ortopedia e Traumatologia, 1984-1989  
Scuola di Specialità di Fisioterapia, 1989-1992

**Appartenenze a Società**

Società Italiana di Ortopedia  
Società Italiana di Medicina e Chirurgia del Piede  
International Society of Biomechanics  
European Society of Biomechanics  
SIGASCOT  
AAOS  
ORS

**Consigliere di Società**

: Council Member nella European Society of Biomechanics (1992)  
Società di Chirurgia del Ginocchio (2002)  
SIGASCOT (2004)

**Interessi di ricerca:**

Fisiologia articolare e biomeccanica protesica  
Analisi del Movimento  
Biomateriali in Ortopedia

**Pubblicazioni**

oltre 150 lavori pubblicati a stampa, oltre 100 tra Abstracts,  
Proceedings e Capitolo di libro  
Libro: Gait Analysis Methodologies and Clinical Application,  
1994, IOS Press, ISBN 9051991703

**Insegnamenti**

Fisiokinesiterapia al CDU di Podologia  
Fisiokinesiterapia al CDU di Tecnico Ortopedica  
Fisiokinesiterapia Scuola di Specialità di Geriatria  
Clinica Ortopedica Medicina e Chirurgia  
Ortopedia e Traumatologia Scuola di Specialità Ortopedia  
Ortopedia e Traumatologia Scuola di Specialità Fisioterapia

**Brevetto**

Total Ankle Arthroplasty; P.C.T. /IB00/00638 del 12.05.00

**Interventi chirurgici**

Oltre 2000 interventi di chirurgia riguardante artroscopia di ginocchio, spalla e caviglia, ricostruzioni capsulo-legamentose ginocchio e spalla, protesi totali articolari anca e ginocchio.

## Bibliografia selezionata

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A new software tool for 3D motion analyses of the musculo-skeletal system.  
Clin Biomech (Bristol, Avon). 2006 Oct;21(8):870-9. Epub 2006 May 8.  
PMID: 16684581 [PubMed - in process]
- 2: Berti L, Benedetti MG, Ensini A, Catani F, Giannini S.  
Clinical and biomechanical assessment of patella resurfacing in total knee arthroplasty.  
Clin Biomech (Bristol, Avon). 2006 Jul;21(6):610-6. Epub 2006 Mar 3.  
PMID: 16516359 [PubMed - indexed for MEDLINE]
- 3: Catani F, Fantozzi S, Ensini A, Leardini A, Moschella D, Giannini S.  
Influence of tibial component posterior slope on in vivo knee kinematics in fixed-bearing total knee arthroplasty.  
J Orthop Res. 2006 Apr;24(4):581-7.  
PMID: 16514660 [PubMed - indexed for MEDLINE]
- 4: Moschella D, Blasi A, Leardini A, Ensini A, Catani F.  
Wear patterns on tibial plateau from varus osteoarthritic knees.  
Clin Biomech (Bristol, Avon). 2006 Feb;21(2):152-8. Epub 2005 Nov 2.  
PMID: 16260075 [PubMed - indexed for MEDLINE]
- 5: Leardini A, Astolfi L, Fantozzi S, Viceconti M, Benedetti MG, Catani F.  
Advanced multimodal visualisation of clinical gait and fluoroscopy analyses in the assessment of total knee replacement.  
Comput Methods Programs Biomed. 2005 Sep;79(3):227-40.  
PMID: 15998550 [PubMed - indexed for MEDLINE]
- 6: Catani F, Ensini A, Leardini A, Bragonzoni L, Toksvig-Larsen S, Giannini S.  
Migration of cemented stem and restrictor after total hip arthroplasty: a radiostereometry study of 25 patients with Lubinus SP II stem.  
J Arthroplasty. 2005 Feb;20(2):244-9.  
PMID: 15902865 [PubMed - indexed for MEDLINE]
- 7: Rizzo A, Catani F, Ensini A, Turriago MV, Giannini S.  
Clinical evaluation of resurfacing of the patella in posterior-stabilizing total knee replacement.  
Chir Organi Mov. 2004 Jul-Aug;89(3):233-43. English, Italian.  
PMID: 15751590 [PubMed - indexed for MEDLINE]
- 8: Donati D, Benedetti MG, Catani F, Berti L, Capanna R.

[Gait analysis after rotationplasty hip surgery for malignant tumor of the proximal femur]  
Rev Chir Orthop Reparatrice Appar Mot. 2004 Oct;90(6):561-8. French.  
PMID: 15672924 [PubMed - indexed for MEDLINE]

9: Catani F, Leardini A, Ensini A, Cucca G, Bragonzoni L, Toksvig-Larsen S, Giannini S.

The stability of the cemented tibial component of total knee arthroplasty: posterior cruciate-retaining versus posterior-stabilized design.  
J Arthroplasty. 2004 Sep;19(6):775-82.  
PMID: 15343540 [PubMed - indexed for MEDLINE]

10: Leardini A, O'Connor JJ, Catani F, Giannini S.

Mobility of the human ankle and the design of total ankle replacement.  
Clin Orthop Relat Res. 2004 Jul;(424):39-46.  
PMID: 15241142 [PubMed - indexed for MEDLINE]

11: Stagni R, Leardini A, Catani F, Cappello A.

A new semi-automated measurement technique based on X-ray pictures for ankle morphometry.  
J Biomech. 2004 Jul;37(7):1113-8.  
PMID: 15165882 [PubMed - indexed for MEDLINE]

12: Fantozzi S, Leardini A, Banks SA, Marcacci M, Giannini S, Catani F.

Dynamic in-vivo tibio-femoral and bearing motions in mobile bearing knee arthroplasty.  
Knee Surg Sports Traumatol Arthrosc. 2004 Mar;12(2):144-51. Epub 2003 Jul 9.  
PMID: 15024562 [PubMed - indexed for MEDLINE]

13: Principi T, Pantanetti S, Catani F, Elisei D, Gabbanelli V, Pelaia P, Leoni P.

Noninvasive continuous positive airway pressure delivered by helmet in hematological malignancy patients with hypoxemic acute respiratory failure.  
Intensive Care Med. 2004 Jan;30(1):147-50. Epub 2003 Oct 31.  
PMID: 14593457 [PubMed - indexed for MEDLINE]

14: Benedetti MG, Catani F, Bilotta TW, Marcacci M, Mariani E, Giannini S.

Muscle activation pattern and gait biomechanics after total knee replacement.  
Clin Biomech (Bristol, Avon). 2003 Nov;18(9):871-6.  
PMID: 14527815 [PubMed - indexed for MEDLINE]

15: Fantozzi S, Benedetti MG, Leardini A, Banks SA, Cappello A, Assirelli D, Catani F.

Fluoroscopic and gait analysis of the functional performance in stair ascent of two total knee replacement designs.  
Gait Posture. 2003 Jun;17(3):225-34.  
PMID: 12770636 [PubMed - indexed for MEDLINE]

16: Catani F, Benedetti MG, De Felice R, Buzzi R, Giannini S, Aglietti P.

Mobile and fixed bearing total knee prosthesis functional comparison during

stair climbing.

Clin Biomech (Bristol, Avon). 2003 Jun;18(5):410-8.

PMID: 12763437 [PubMed - indexed for MEDLINE]

17: Benedetti MG, Montanari E, Catani F, Vicenzi G, Leardini A.

Pre-operative planning and gait analysis of total hip replacement following hip fusion.

Comput Methods Programs Biomed. 2003 Mar;70(3):215-21.

PMID: 12581554 [PubMed - indexed for MEDLINE]

18: Leardini A, Rapagna L, Ensini A, Catani F, Cappello A.

Computer-assisted preoperative planning of a novel design of total ankle replacement.

Comput Methods Programs Biomed. 2002 Mar;67(3):231-43.

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19: Giannini BS, Ceccarelli F, Benedetti MG, Catani F, Faldini C.

Surgical treatment of flexible flatfoot in children a four-year follow-up study.

J Bone Joint Surg Am. 2001;83-A Suppl 2 Pt 2:73-9. No abstract available.

PMID: 11712838 [PubMed - indexed for MEDLINE]

20: Benedetti MG, Catani F, Leardini A, Pignotti E, Giannini S.

Data movement in gait analysis for clinical applications.

Clin Biomech (Bristol, Avon). 1998 Oct;13(7):I-II. No abstract available.

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Muscle performance about the knee joint in patients who had distal femoral replacement after resection of a bone tumor. An objective study with use of gait analysis.

J Bone Joint Surg Am. 2000 Nov;82-A(11):1619-25.

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Analysis of ground reaction forces by means of wavelet transform.

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The role of the passive structures in the mobility and stability of the human ankle joint: a literature review.

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26: Toutoungi DE, Lu TW, Leardini A, Catani F, O'Connor JJ.

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Clin Biomech (Bristol, Avon). 1999 Aug;14(7):484-93.

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30: Catani F, Benedetti MG, Simoncini L, Leardini A, Giannini S.

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Myoelectric activation pattern during gait in total knee replacement: relationship with kinematics, kinetics, and clinical outcome.

IEEE Trans Rehabil Eng. 1999 Jun;7(2):140-9.

PMID: 10391584 [PubMed - indexed for MEDLINE]

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Functional evaluation in total hip replacement patients.

Chir Organi Mov. 1998 Oct-Dec;83(4):349-57. English, Italian.

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A geometric model of the human ankle joint.

J Biomech. 1999 Jun;32(6):585-91.

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Kinematics of the human ankle complex in passive flexion; a single degree of freedom system.

J Biomech. 1999 Feb;32(2):111-8.

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35: Catani F, Marcacci M, Benedetti MG, Leardini A, Battistini A, Iacono F, Giannini S.

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Chir Organi Mov. 1998 Jul-Sep;83(3):249-62. Review. English, Italian.

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Validation of a functional method for the estimation of hip joint centre location.

J Biomech. 1999 Jan;32(1):99-103.

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37: Cappozzo A, Catani F, Leardini A, Benedetti MG, Croce UD.

Position and orientation in space of bones during movement: experimental artefacts.

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Position and orientation in space of bones during movement: anatomical frame definition and determination.

Clin Biomech (Bristol, Avon). 1995 Jun;10(4):171-178.

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39: Catani F, Hodge A, Mann RW, Ensini A, Giannini S.

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40: Catani F, Sangiorgi L, Picci P, Giannini S.

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Surgical repair of achilles tendon ruptures using polypropylene braid augmentation.

Foot Ankle Int. 1994 Jul;15(7):372-5.

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Patellar resurfacing in tumor endoprosthesis: a study in regard to power transmission.

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43: Catani F, Capanna R, Benedetti MG, Battistini A, Leardini A, Cinque G, Giannini S.

Gait analysis in patients after Van Nes rotationplasty.

Clin Orthop Relat Res. 1993 Nov;(296):270-7.

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