ACS®
Knee System

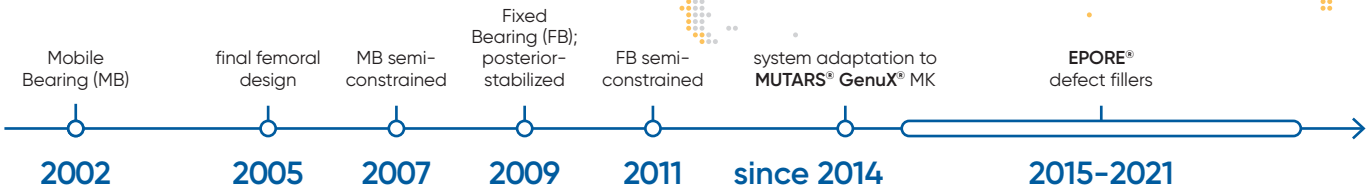
implantcast

20 years of experience

Global market

approximately 300.000 treatments in more than 50 countries since market launch in 2002[1]

ACS® milestones



[1]Status 09/2022

Consistent design

Optimal fit
asymmetric, anatomic design

Identical inner contor
from primary to revision

Physiological kinematics
deep, by 5° lateralized trochlea

Max. preservation of bone stock
distal resection inclined by 15°

Slim sizes
smaller mediolateral dimensions

One system – various indications

Flexible

Mobile Bearing and Fixed Bearing,
cementless and cemented

Extentable

from non-constrained to semi-constrained

Modular

due to spacers, stems, offsetadapters
and **EPORE®** defect fillers

ACS® Mobile Bearing

ACS® Fixed Bearing posterior-stabilized

ACS® Mobile Bearing semi-constrained

ACS® Fixed Bearing semi-constrained
with **EPORE®** defect fillers

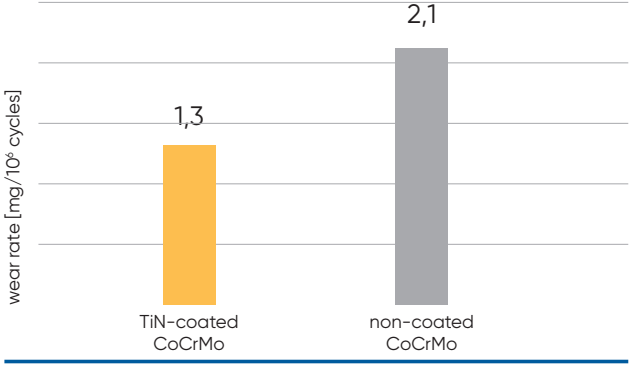
TiN-coating

The femoral and tibial components of the **ACS®** system are coated with a ceramic surface of titanium nitride (TiN) as standard.

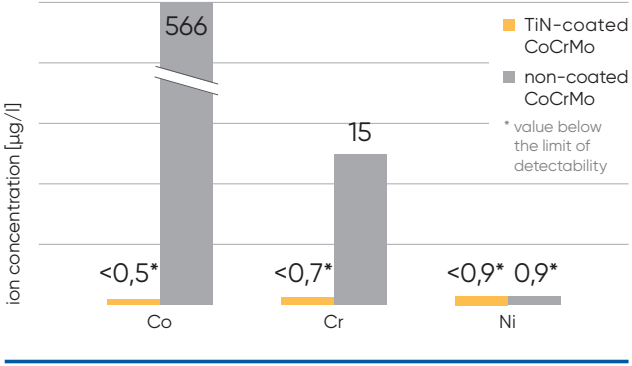
Reliable coating
application for 25 years[1] for cemented and cementless implants

Increased wettablity
reduced polyethylene wear by optimized antifriction properties[2]

Excellent adhesive strength[2]
adhesion classes HF1, higher than Oxinium (HF3)[3]



wear test acc. to DIN 14243 (after 5 million cycles)[4]



metal ion release for TiN-coated and non-coated CoCrMo[2,4]

62 % reduced wear rate

TiN-coated CoCrMo implants compared to non-coated components[4]

<0,9 µg/l metal ion release

ion release of nickel, cobalt and chromium is below the level of detectability; suitable for patients with sensitivity to nickel, cobalt or chromium[2,5]

[1] Data provided by DOT GmbH (date 18.10.2022)
[2] Dempwolf H (2013) Entwicklung und Charakterisierung neuartiger PVD-Beschichtungen zur Allergievermeidung und Verschleißminderung in der Endoprothetik, Bachelorarbeit Universität Rostock
[3] Galetz MC et al. (2010) Abrasion resistance of oxidized zirconium in comparison with CoCrMo and titanium nitride coatings for artifi cial knee joints. Journal of Biomedical Materials Research B: Applied Biomaterials Vol. 93B Issue 1
[4] Testbericht A219/05.1 IMA Dresden.
[5] Baumann A. (2001) Keramische Beschichtungen in der KTEP Standardlösung für Allergiker. JATROS Orthopädie & Rheumatologie 6: 16-17
[4] Prof. Thomas LMU München Final Report Effect of a TiNbN or TiN surface coating on cobalt chromium-molybdenum and stainless steel test specimensregarding the release of nickel, chromium and cobalt: evaluation via eluate analysis and in-vitro cytokine release from per pheral human blood cells, Data on file
[5] Baumann A. Keramische Beschichtungen in der KTEP Standardlösung für Allergiker. JATROS Orthopädie & Rheumatologie 6: 16-17. 2001

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