MUTARS®
Modular Tumor- And Revision System

Proven modularity
Modular
Universal
Tumor
And
Revision
System

femoral implants
Modular
Universal
Tumor
And
Revision
System

tibial implants
Modular Universal Tumor And Revision System
Long time results: over 6000 implantations since 1993

Best documented tumor system

Compatible to MUTARS® revision components

Attachment tube for soft tissue reconstruction

Custom made implants to be combined with the modular system

Custom made implants in short term
Design features

- 5° adjustment of torsion, 10° in Humerus
- Length adjustment in steps of 20mm (10mm in total femur)
- Material: Titanium if possible, CoCrMo if necessary
- Cementless stems TiAl6V4/HA coating
- Cemented stems CoCrMo
- Articulating surfaces: CoCrMo or TiAl6V4 and TiN
- Non articulating surfaces: TiAl6V4
Adjustment of rotation

5° femoral & tibial

10° humeral
Adjustment of length

- 20mm steps

- 10mm at total femur
implants (non articulating): TiAl6V4
Implants (articulating): CoCrMo
Exception humeral caps: TiAl6V4 with TiN coating
stems

cementless: TiAl6V4 & HA

cemented: CoCrMo

Femoral stems: curved
- 10-20mm zementless
- 11-17 mm cemented
- Long stems (160+200mm) with interlocking holes

Tibiastems: straight
- 10-16 mm cementless
- 11-15 mm cemented,

Humeral stems, straight,
- 7-15 mm cementless, TiAl6V4, interlocking holes
- 8-12 mm cemented, CoCrMo
MUTARS® proximal femur

- Rekonstruktion > 80 mm
- Adjustment 20mm

MUTARS® - Filia
MUTARS® distal femur

- Rotating hinge Knie
- Rekonstruktion > 100 mm
- Adjustment 20mm
MUTARS® proximale Tibia

- Rotating hinge Knie
- Rekonstruktion > 115 mm
totales Femur & totales Knie

- **MUTARS® totales Femur**
  - rotating hinge knee
  - reconstruction >315 mm
  - Adjustment 10mm

- **MUTARS® total knee**
  - rotating hinge Knie
  - Rekonstruktion >215 mm
  - Adjustment 20mm
  - Metall/Metall coupling
  - Condyle replacement possible
MUTARS® KRI
Condyle replacement

MUTARS® KRI
- Rekonstruktion 50mm
- Condyle replacement
- MUTARS RS stems
- Reconstruction 50mm
MUTARS®
Coupling mechanism of the knee

PEEK-lock
- Monoblock Plateau
- Tibiaplateau modular

Indication:
standard primary tumor prosthesis

Locking mechanism
- Tibial joint MOM (5mm thicker)
- Femoral components „for locking mechanism“

Indication:
revision cases extraarticular resections problem cases with poor soft tissue conditions
MUTARS® proximal Humerus

- resection > 60 mm
  Adjustment 20mm
- 3 cap sizes
- Cemented and cementless stems
MUTARS® distal humerus

- Resection length >30mm
- Hinged joint
  - Cementless or cementted components
- Total ellbow
- Prox. Ulna 50mm
- Humeral stems >7mm for Ulna
MUTARS® total humerus

- Adjustment 20mm
- Hinged joint
- Cementless and cemented implants
MUTARS® Humerus invers

- Better function
- Angle stable multidirectional screws
MUTARS® attachment tube

material:
- PET
- thermofixed
- porosity 250µm
- length: 300mm
- diameter 35mm and 55mm

use:
- refixation of soft tissue when using MUTARS®
- prevents luxation

Attention:
- The tube must not be used on rough surfaces
Additional components

- HMRS adapter
- Coupling at stem or femoral comp.
- No joint adaption!
**Additional components**

- RS adapter 30mm combines revision stems with the tumor system
- Tapered stems
- Endpiece for stump lengthening
TiN coating

- Allergy prophylaxis
- Minimized wear
MUTARS® Silver

- Extraosseous coating
- No intraosseous coating
- Intelligent coating
  - Silver ions work only in case of infection
  - Prevent late infection
MUTARS® Silver

- Use of standard treatment protocols
- Take care of additional silver therapy
- Effective utility but expect no wonder
- Significant results published now
MUTARS® Xpand

- noninvasive
- Electromagnetical energy transfer
- Custom made
  - elongation 50-100mm
  - Elongation individually controlled
  - elongation 0.03mm/sek.
Closing the gap

- MUTARS® Tumorprothesis
- MUTARS® KRI intramed. femur
- MUTARS® KRI
- MUTARS® GenuX intramed. femur
- MUTARS® GenuX
- ACS SC
- ACS primary knee
MUTARS® GenuX

Constrained revision prosthesis

- coupling in use since 1995
- three sizes
- modular stems
  (four diameter, three length)
- tibial offset stems (5mm)
- cementless and cemented components
MUTARS® GenuX

Constrained revision prosthesis

biomechanicals:

• fatigue tests of femoral component
• fatigue tests of the coupling mechanism

No failure during 10.000.000 cycles!
MUTARS® GenuX

Constrained revision prosthesis

- Modular tibiaspacer (5mm to 50mm)
- medial and lateral up to 20mm
MUTARS® GenuX

Constrained revision prosthesis

- Modular femurspacer (5mm and 10mm)
- medial and lateral
- distal or distal/posterior (L-spacer)
MUTARS® GenuX

Constrained revision prosthesis

Simple instruments

Only four container
MUTARS® GenuX

Constrained revision prosthesis

• trial implants
MUTARS® GenuX

Constrained revision prosthesis

• torque wrench
MUTARS® GenuX examples
indications and useful combinations

1. Revision case without or with little destruction of tibia or femur

femoral joint with tibia mom and spacer
indications and useful combinations

1. Revision cases with major defects in the tibia
indications and useful combinations

1. Revision cases with major femoral defects
indications and useful combinations

1. Intramedullary femur depending on the femoral defect KFA of femoral joint
indications and useful combinations

1. Primary case (posttraumatic or tumor)

KRI/distal Femur
MUTARS® RS ES

The “easy system”

features:

• proven revision system since 1998
• new easy handling instruments
• less fiddling
• targeting instrument
MUTARS® RS ES

overview
MUTARS® RS ES

The “easy system”
MUTARS® RS ES

The “easy system”
thank you for your attention!