

# SCHULTERPROTHESEN

The background of the slide features several wireframe models of shoulder prostheses. These models are rendered in a light gray color against a darker gray background. They show the complex, multi-layered structure of the implants, including the humeral head, the glenoid component, and the connecting stem. The wireframe perspective highlights the intricate mesh and structural details of the prosthetic components.

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SANKT NIKOLAUS KRANKENHAUS  
EUPEN

2012

# GESCHICHTE



ERSTER VERSUCH:

1892

ERSTE GENERATION (MONOBLOC): 1953

ZWEITE GENERATION (SEPARATE TEILE)

DRITTE GENERATION (ANATOMISCHE PROTHESE)

“REVERSED” SHULTERPROTHESE

# INDIKATIONEN



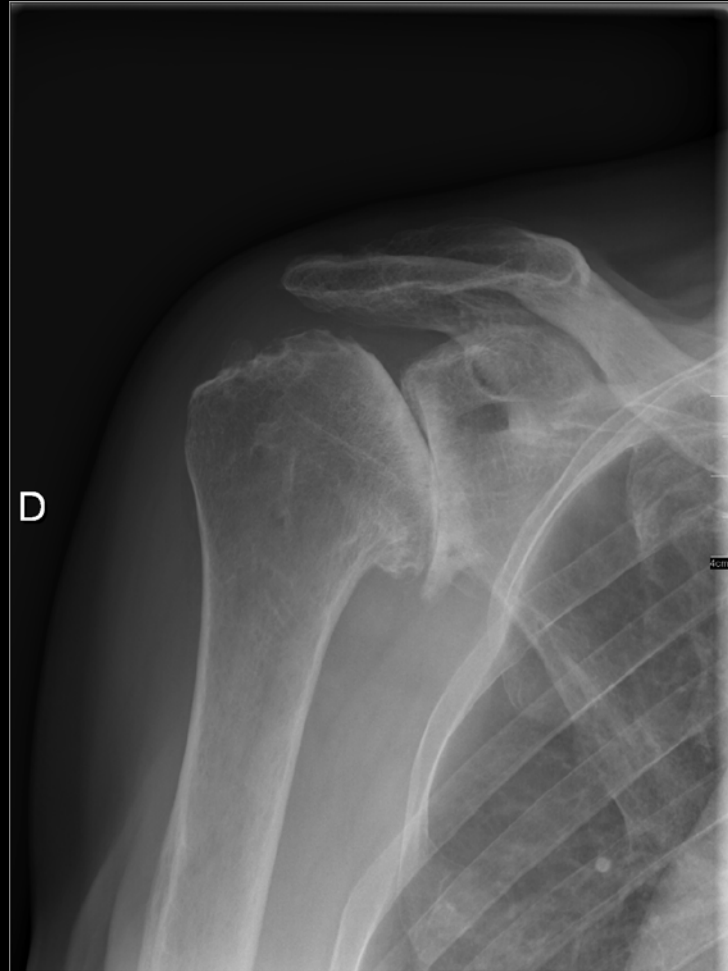
ARTHROSE  
MIT INTAKTE SEHNEN  
MIT SEHNEN RUPTUR

FRAKTUR  
4 FRAGMENT #

AVN / TUMOREN

(MASSIVE RUPTUR ROTATOREN MANCHETTE)

# ARTHROSE



# ROTATOR CUFF ARTHROPATHY



# Shoulder - Fractures

Neer's Classification system

One-Part



Two-Part



Three-Part



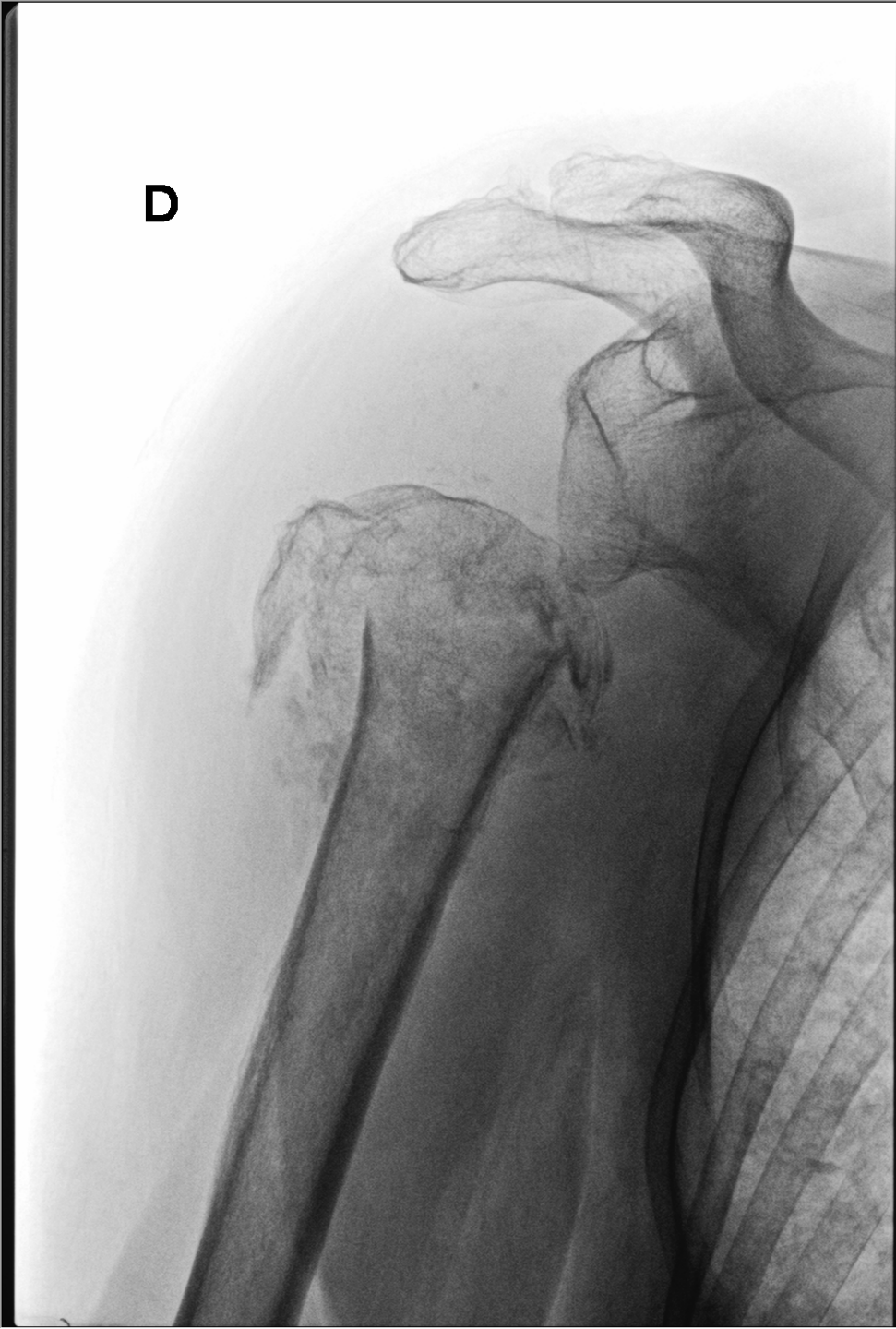
Four-Part



Fracture with Dislocation

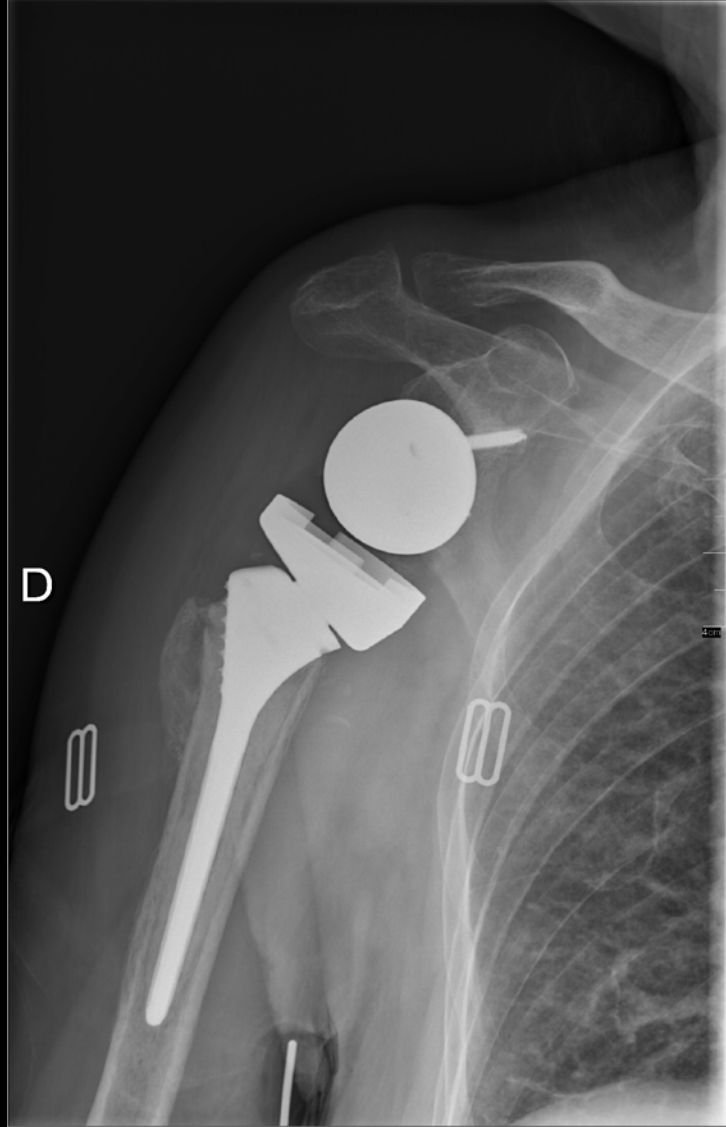


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# SYMPTOMEN



SCHMERZEN

BEWEGUNGS EINSCHRÄNKUNG

KRAFFTVERLUSST

SCHLAFF PROBLEME

# KLINISCHE UNTERSUCHUNG



EINSCHRÄNKUNG BEWEGUNG AKTIV UND PASSIV  
VOR ALLEN EXTERNE ROTATION

SCHMERZEN ANTERIEUR GH

KRAFFTVERLUSST SS / SSC / IS (?)

SCHMERZEN BIZEPS SEHNE

# KONSERVATIVE BEHANDLUNG

The background features two wireframe anatomical models of a knee joint. One model is positioned on the left, showing the femur and tibia in a flexed position. The other model is on the right, showing a different view of the joint, possibly during extension or a different phase of movement. The wireframe consists of numerous thin lines that define the shape and structure of the bones and surrounding ligaments.

TABLETTEN

KINESITHERAPIE

INFILTRATIONEN

SUBACRIOMAL (KORTISON)

INTRA-ARTIKULÄR (KORTISON ODER  
HYALURONSÄURE)

- (ARTHROSKOPISCH DEBRIDEMENT)

# PROTHESE

The background features several 3D wireframe models of shoulder prostheses. On the left, there are two overlapping wireframe spheres representing the humeral head. On the right, there is a more complex wireframe model showing the glenoid component and the humeral head assembly.

RESURFACING (COPELAND)

HEMIARTHROPLASTY

TOTALE SCHULTERPROTHESE

“REVERSED” SCHULTERPROTHESE

ZEMENT <-> ZEMENTLOS

# RESURFACING (COPELAND)



# RESURFACING (COPELAND)

The image features two 3D wireframe models of a shoulder joint. The model on the left shows a normal, smooth glenoid surface. The model on the right shows a humeral head with a resurfaced glenoid, characterized by a distinct, textured surface. The background is a dark gray with a subtle grid pattern.

FÜR ARTHROSE NUR AM HUMERUS

NORMALES GLENOID

JÜNGERE PATIENTEN

# RESURFACING (COPELAND)

The background features two 3D wireframe models of a humeral head and neck. The model on the left shows a complete humeral head with a textured surface, while the model on the right shows a similar head with a different surface texture, likely representing the resurfacing technique. The wireframe structure is composed of numerous thin lines forming a mesh that defines the shape of the bone.

## VORTEILE:

KÜRZERE OP ZEIT / WENIGER BLUTVERLUST

WENIG KNOCHEN ENTFERNEN

EINFACHERE REVISION

SCHNELLERE REHABILITATION

## NACHTEILE:

NUR HUMERUSKOPF

GUTE KNOCHENKWALITÄT NOTWENDIG

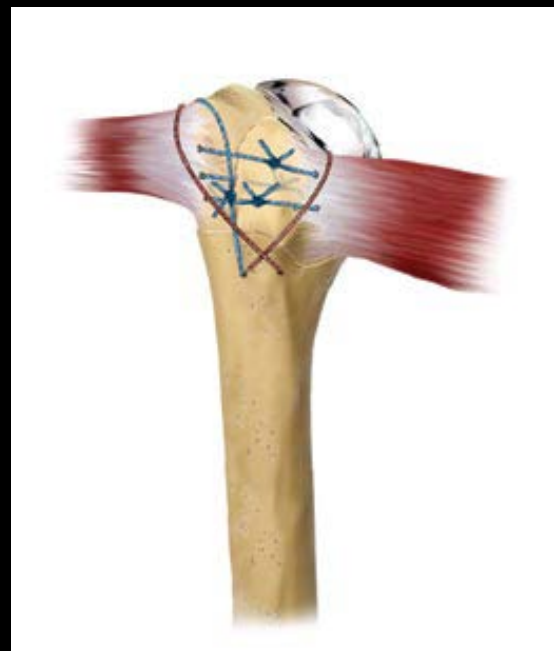
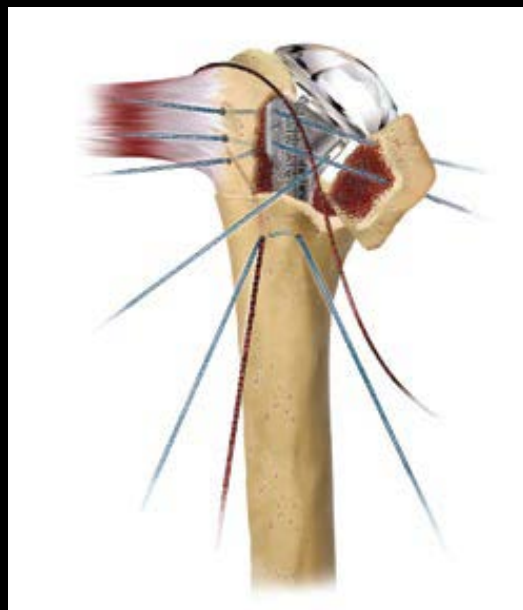
# HEMIARTHROPLASTY



ARTHROSE  
FRAKTUR

BRAUCHT INTAKTE SEHNEN  
NORMALES GLENOID ODER CONCENTRISCHEN  
VERSCHLEISS





# HEMIARTHROPLASTY



VORTEILE:

KÜRZERE OP ZEIT / WENIGER BLUTVERLUST

NACHTEILE:

NUR HUMERUSKOPF

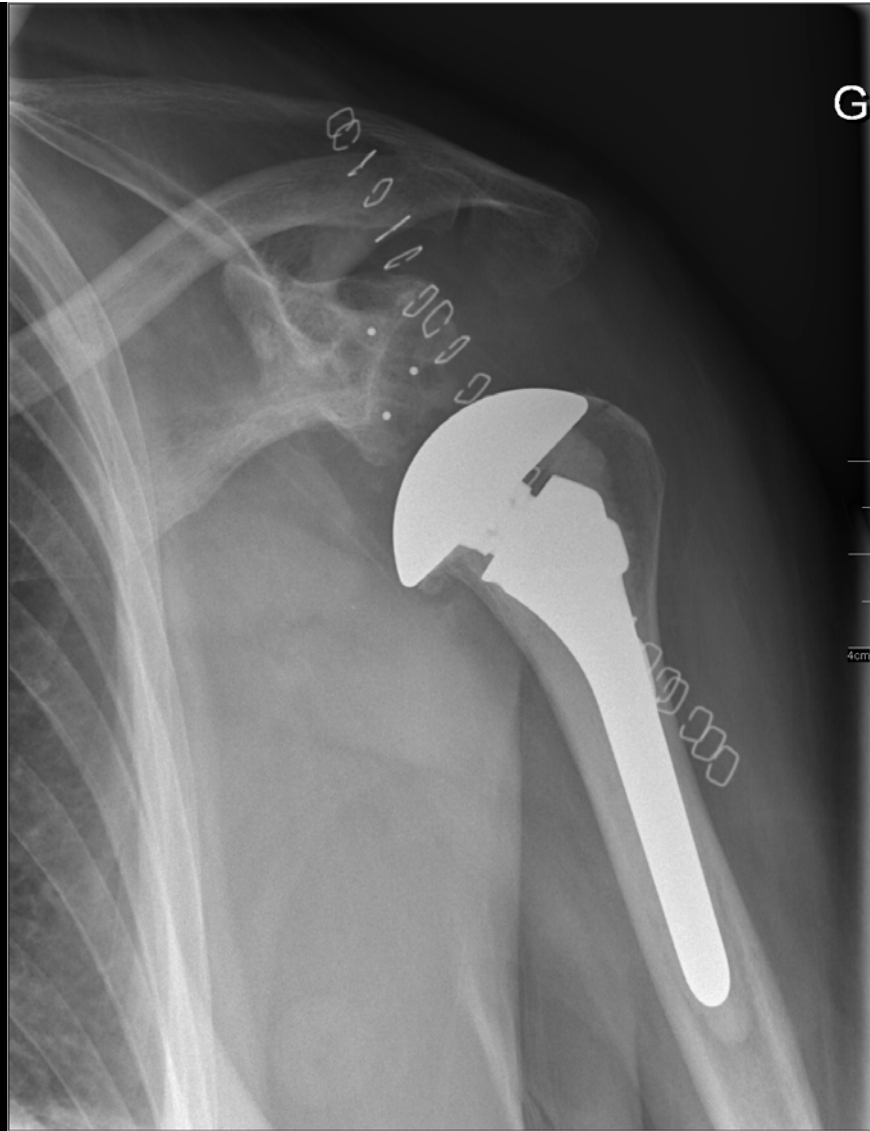
LANGSAMERE REHA WIE TSP

# TOTALE SCHULTERPROTHESE

The image features two 3D wireframe models of a shoulder joint against a dark grey background. The model on the left represents a natural shoulder joint with a healthy humeral head and intact rotator cuff tendons. The model on the right represents a total shoulder prosthesis, showing a metal humeral head and a plastic glenoid component. The wireframe structure highlights the complex geometry and the arrangement of the rotator cuff muscles and tendons.

ARTHROSE  
INTAKTE SEHNEN

# TOTALE SCHULTERPROTHESE



# TOTALE SCHULTERPROTHESE



## VORTEILE:

BESSERE RESULTATEN ERSTE MONATE  
SCHNELLERE REHABILITATION

## NACHTEILE:

LÄNGERE OP ZEIT / MEHR BLUTVERLUST  
LOOSENING GLENOID ?

# REVERSED SCHULTER PROTHESE

The image features two wireframe anatomical models of a shoulder joint. The model on the left shows a normal shoulder joint with the humeral head positioned anteriorly. The model on the right shows a reversed shoulder prosthesis, where the humeral head is positioned posteriorly. The background is a solid dark gray color.

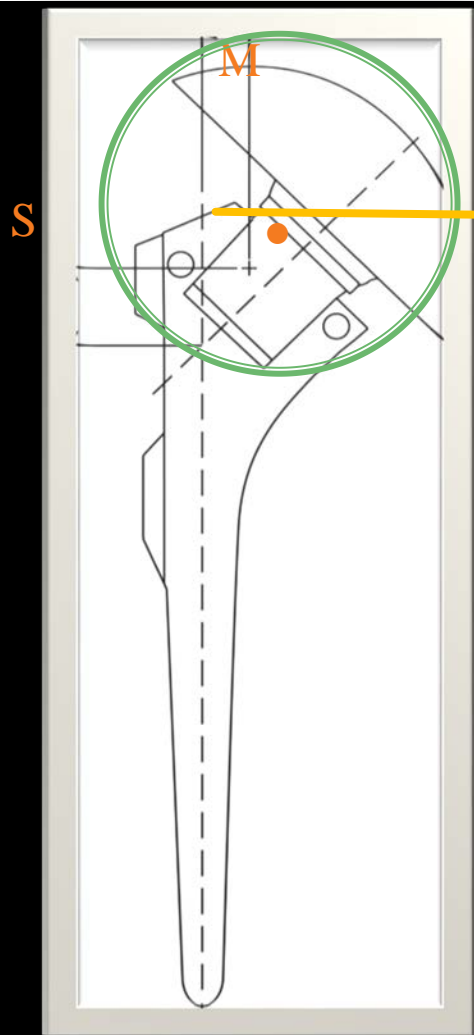
ARTHROSE

RUPTUR DER ROTATOREN MANCHETTE

TUMOREN

FRAKTUREN

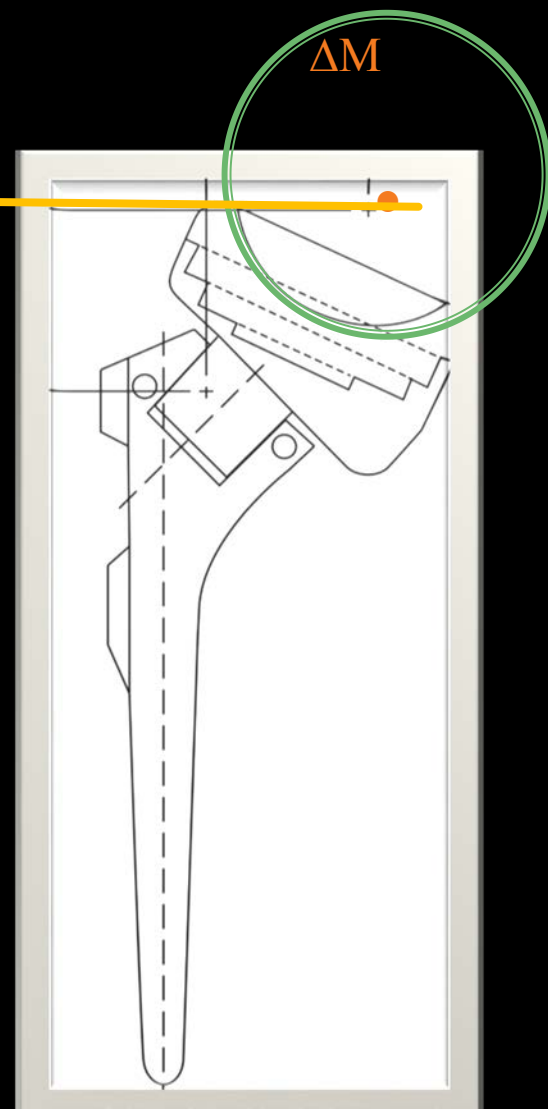




S

M

$\Delta S$



$\Delta M$



# REVERSED SCHULTER PROTHESE



## VORTEILE:

SCHNELLERE REHABILITATION

GUTE FUNKTION TROTZ SEHNENRUPTUR

## NACHTEILE

LÄNGERE OP ZEIT

MEHR KOMPLIKATIONEN

# KOMPLIKATIONEN



LUXATION

BLUTUNG

LOOSENING

INFEKTION

NERFEN SCHADEN

BEWEGUNGS EINSCHRÄNKUNG

SCHMERZEN

# RESULTATEN

The background features two wireframe anatomical models. On the left is a hip joint, showing the femoral head and neck. On the right is a knee joint, showing the femur, tibia, and patella. The models are rendered in a light gray color against a dark gray background.

SEHR GUT FÜR SCHMERZ KONTROLLE  
GUT FÜR FUNKTION

BESSER FÜR TSP WIE FÜR HAP  
BESSER FÜR ARTHROSE WIE FÜR FRAKTUR

# REHABILITATION

6 WOCHEN ZIMMERTASCHE

KINE

6 WOCHEN PASSIEVE ÜBUNGEN  
KRAFFT AUFBAU AB 3 MONATE



# REHABILITATION



REVERSED > TSP > HAP

THP: 3 MONATE

TKP: 6 – 12 MONATE

TSP: 18 – 24 MONATE

# WARUM?



ÄLTERE PATIENTEN

WARTEN LÄNGER (BESSER VERTRAGEN?)

SEHR STEIF

KOMPLEXE ANATOMIE

SEHR BEWEGLICH

VIELE 'KURZE' MUSKELN

WEICHTEILE (SEHNEN) SEHR WICHTIG

# EVOLUTION?

The background features two wireframe models of prosthetic limbs. One is a more complex, multi-segmented model on the right, and the other is a simpler, more cylindrical model on the left. Both are rendered in a light gray color against a dark gray background.

BESSERE RESULTATEN  
BESSERE "HARDWARE"  
MODULÄREN PROTHESE  
GROSSE AUSWAHL

-> PROTHESE WIRD ANGEPAST AN DER  
SCHULTER

MEHR ERFAHRUNG?  
BESSER BEKANNT?

The background features several overlapping, semi-transparent wireframe structures. These structures are composed of numerous thin, light-colored lines that form complex, curved, and layered geometric shapes, resembling architectural models or abstract sculptures. The lines are arranged in a way that creates a sense of depth and movement, with some shapes appearing to be in the foreground and others receding into the background. The overall aesthetic is clean, modern, and technical.

DANKE