



## DEUTSCHE GESELLSCHAFT FÜR ENDOPROTHETIK

### A SURVEY OF THE AE – GERMAN SOCIETY FOR ARTHROPLASTY E.V. TO ASSESS CURRENT RECOMMENDATIONS FOR RETURN TO SPORT AFTER JOINT REPLACEMENT

**Please return your completed survey form at the registration or via mail to**

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– We thank you for your participation!

#### O. Voluntary Information

Name: \_\_\_\_\_ Age: \_\_\_\_\_

Place of practice: \_\_\_\_\_

#### 1 General Questions

1.1 "In which year did you receive your Approbation?"

- ☐ vor 1980
- ☐ 1980 -1990
- ☐ 1990 - 2000
- ☐ 2000 - 2010
- ☐ 2010 – 2020

1.2 "How high do you rate your own athletic activity?"

- ☐ "very high, I do sports daily"
- ☐ "high, I do sports multiple times a week"
- ☐ "medium, I do sports every now and then"
- ☐ "low, I do not do sports"

1.3 "Is the question of the patient's sporting activity before joint replacement part of your standard patient interview?"

- ☐ „Yes“
- ☐ „No“
- ☐ „I do not know“
- ☐ „It does not matter“

1.4 "Which preoperative parameters are relevant for you with regard to postoperative sporting ability in the assessment?"

- ☐ „Age“
- ☐ „Gender“
- ☐ „BMI“
- ☐ „Muscle mass“
- ☐ „Coordination/Experience of the sport before planned surgery“
- ☐ „Bone density“
- ☐ „Neurologic precondition“
- ☐ „Rheumatologic precondition“

1.5 "What do you think is the **main** risk from sport after implantation of an endoprosthesis? (Maximum 2 answers)"

- ☐ "Joint dislocation"
- ☐ "Periprosthetic fracture"
- ☐ "Implant loosening"
- ☐ "Polyethylene-wear"
- ☐ "Periprosthetic infection"
- ☐ "Osteolysis"
- ☐ "Material breach"
- ☐ "Tendon rupture"
- ☐ „Other \_\_\_\_\_ (which?)“

### 3 Specific questions to knee arthroplasty

3.1 "How important do you think sporting activity after knee replacement surgery?"

- ☐ "very important"
- ☐ "important"
- ☐ "not important"
- ☐ "does not matter"

3.2 "Do you think that physical activity has a **negative** impact on the durability of a knee arthroplasty (reduced lifespan)?"

- ☐ „Yes“
- ☐ „No“
- ☐ „Do not know“
- ☐ „Does not matter“

3.3 "Do you think that physical activity has a **positive** impact on the durability of a hip arthroplasty (reduced lifespan)?"

- ☐ „Yes“
- ☐ „No“
- ☐ „Do not know“
- ☐ „Does not matter“

3.4 "The burden that patients with a **knee arthroplasty** expose themselves to is usually ..."

- ☐ "Way too high"
- ☐ "A little too high"
- ☐ "Just right"
- ☐ "Too low"
- ☐ "Way too low"

3.5 "How often do you attribute failure of **hip arthroplasty** to stress overload or sports?"

- ☐ "In more than 50% of revision surgeries"
- ☐ "In more than 25% of revision surgeries"
- ☐ "In more than 10% of revision surgeries"
- ☐ "In more than 5% of revision surgeries"
- ☐ "In more than 1% of revision surgeries"
- ☐ "In less than 1% of revision surgeries"

3.6 "Does a high athletic standard influence the choice of your surgical access route? If yes, which one do you choose?"

- ☐ Yes,  
if yes, which surgical approach do you prefer?
  - ☐ medial parapatellar
  - ☐ subvastus
  - ☐ midvastus
- ☐ No

3.7 "Does a high level of sporting ability influence the desired alignment? If yes, which one?"

- ☐ Yes,  
if yes, which alignment do you prefer?
  - ☐ "mechanical alignment"
  - ☐ "kinematic alignment"
  - ☐ "anatomical alignment, residual varus- or valgus"
- ☐ No

3.8 "Do you prefer a unicondylar sled prosthesis to a bicondylar one in case of high physical demands?"

- ☐ Yes
- ☐ No

3.9 "Does the design of a knee arthroplasty affect athletic ability? If so, which design do you choose?"

- ☐ Yes,  
If yes, which design do you prefer for patients with high return to sports expectations?
  - ☐ Single-Radius
  - ☐ Multi-Radius
  - ☐ J-Curve
  - ☐ Medial-Pivot
  - ☐ andere\_\_\_\_\_ (which design?)
- ☐ No

3.10 "What type of coupling for a TKA do you recommend for the patient's desired sporting activities?"

Kopplungstyp	High-Impact*	Low-Impact*	No Sport
posterior cruciate retaining (PCR)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
posterior cruciate substituting (PCS)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ultracongruent (posterior stabilizing design)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fixed Bearing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mobile Bearing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased tibial shaft length	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hinged prosthesis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3.11 "Would you advise to apply pain catheters (N. femoralis, N. sciatic nerve) in patients with high athletic activity expectations?"

- ☐ „Yes“,
- ☐ „No“
- ☐ „Does not matter“

3.12 "Does a high athletic standard influence post-treatment (NB)?"

- ☐ Yes,  
wenn ja, welche würden sie in diesem Fall empfehlen?
  - ☐ "Yes, application of a continuous passive motion treatment"
  - ☐ "Yes, enforced rehabilitation"
  - ☐ "Yes, restrictive rehabilitation"
- ☐ No

3.13 "Your patient expresses the wish to return to previously practiced high-impact sports after the knee arthroplasty surgery. Which statement do you make?"

- ☐ "I recommend it without limitations after a certain time of recovery"
- ☐ "I recommend it only after adequate training of the patient in regard to movements and risks."
- ☐ "I recommend no high-impact sports after arthroplasty"
- ☐ "I leave it to the patient and make no specific statement."

3.14 "What is your recommendation for sports after a **total knee arthroplasty (TKA)**?"

Type of sport	"after 3 months"	"after 6 months"	"not recommended"	"undecided"
High-Impact*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Low-Impact*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<sup>1</sup>

<sup>1</sup> \*Low impact sports include swimming, walking, pilates, elliptical training. General characteristics are smooth and even body movements. In contrast, high-impact sports include running, skiing, squash, basketball and boxing. They generally have an increased risk for injury due to abrupt movements.

5. "What is your recommendation for patients after **total knee arthroplasty**?"

Sportart	without limitation	with training	not recommended	undecided
"Basketball"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"Bowling"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"Boxing/Martial Arts"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"E-Scooter"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"Fitness/Weights"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"Soccer"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"Ballroom Dancing"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"Golf"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"Handball"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"Hockey"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"Jogging"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"Climbing"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"Pilates"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"Biking level"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"Biking cross"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"Horseback riding"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"Rowing"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"Swimming"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"Ski slope"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"Ski long"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"Walking"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"Squash"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"Surfing"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"Dancing"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"Tennis"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"Table tennis"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"Gymnastics"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"Volleyball"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"Hiking"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"Yoga"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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 – We thank you for your participation!