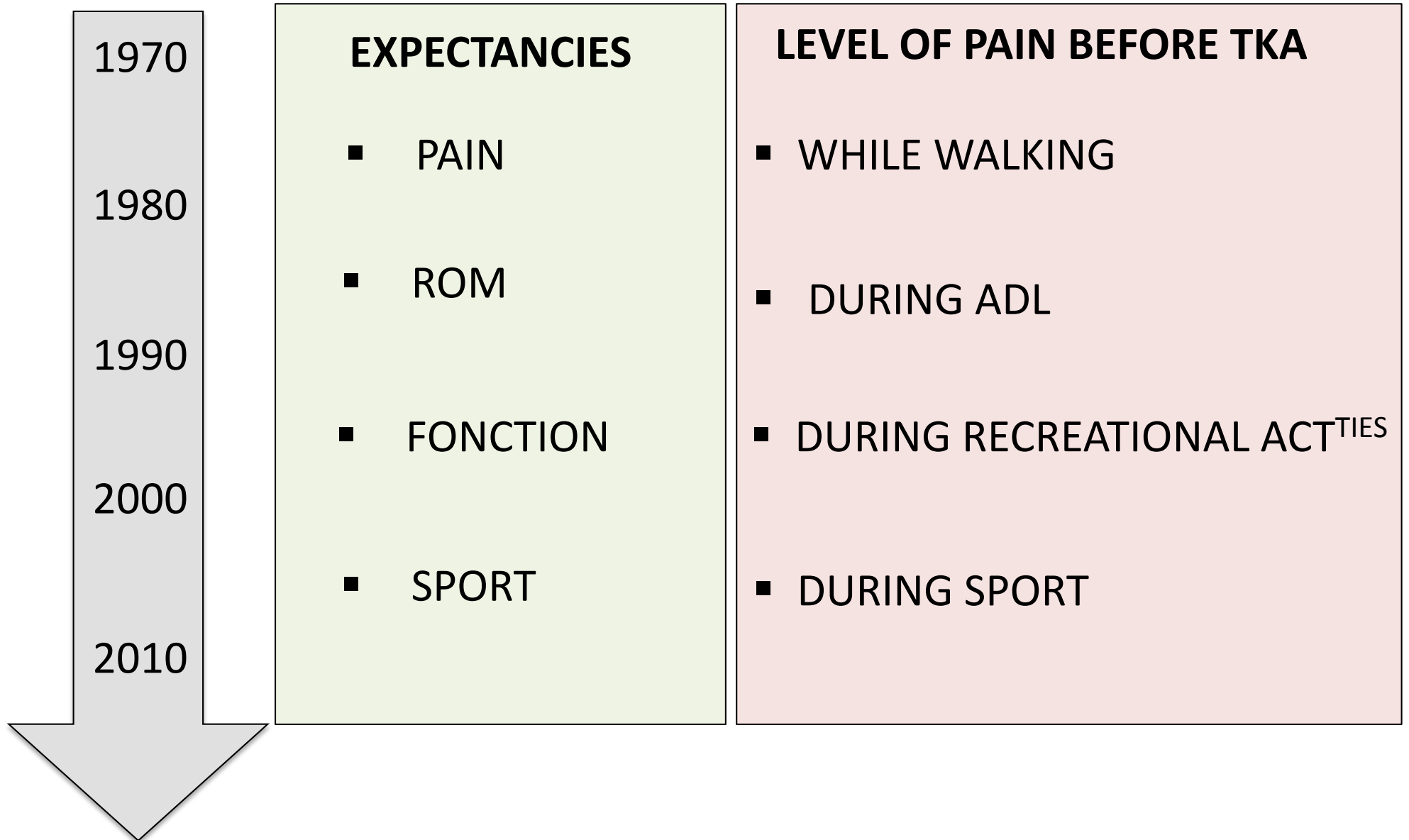


Satisfaction – Expectations & TKAs'

M Bonnin, Centre Orthopédique Santy. Lyon France




TKA: Expectancies & Confidence



Newspapers - Internet - Websites



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Activities After Knee Replacement

What Sports Can I Perform After Knee Replacement?

By Jonathan Cluett, M.D.
Orthopedics Expert

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ASK WELL

Ask Well: Exercise After Knee Replacement

By GRETCHEN REYNOLDS MAY 30, 2014 12:01 AM 9 Comments




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Susan's Story: Back on the court after knee replacement surgery

Tools



00:18 -08:24

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BODY

If someone is successfully treated for Ebola and functionally "cured" of the virus, is the virus still in their body and, if so, could it become active again?

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Medical literature

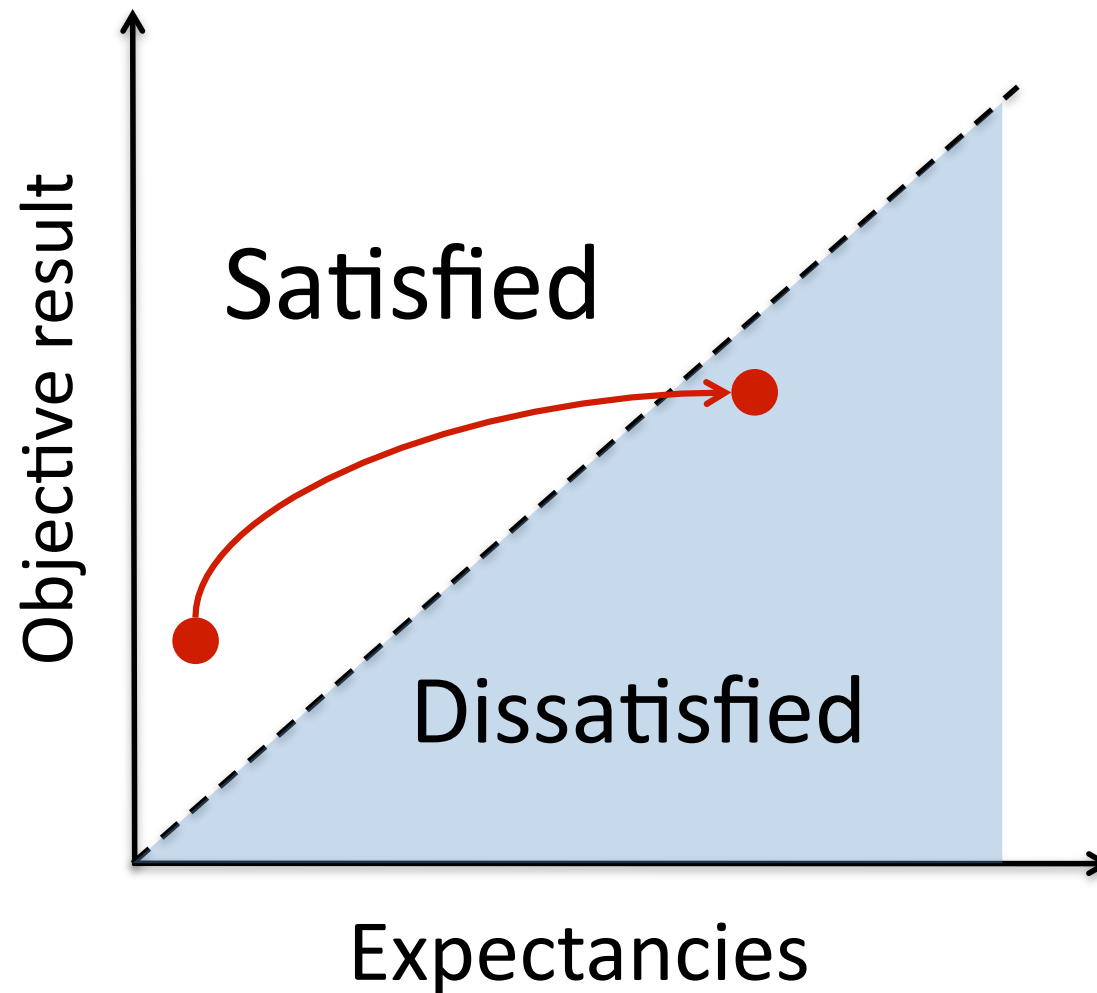
Mont AJSM 2002

- ✓ 33 tennis players (64y)
- ✓ Return to competition: 6 months
- ✓ 3 times a week (single and double)
- ✓ All satisfied

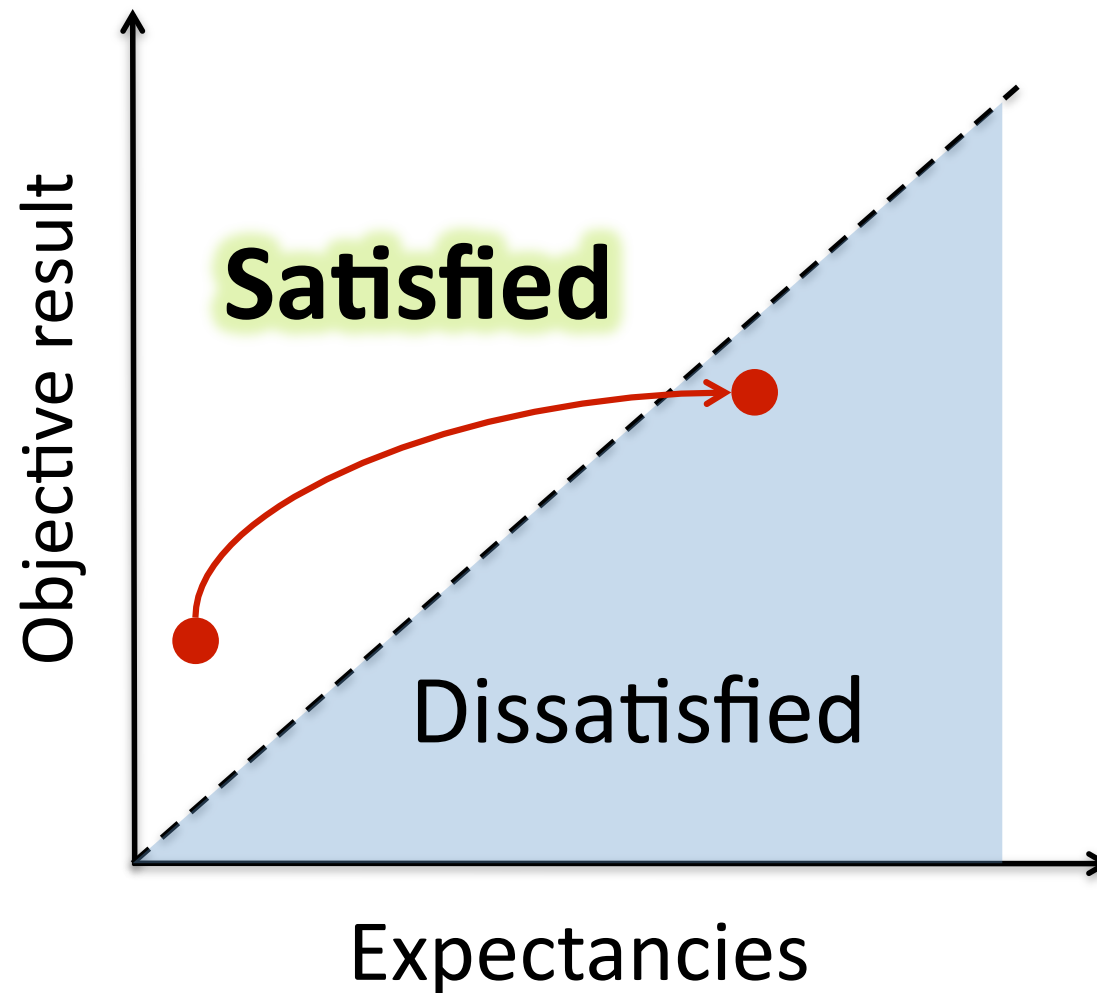


Questionnaire from the United States Tennis Association.

High expectancies: risk of dissatisfaction



High expectancies: risk of dissatisfaction



Are you satisfied with the procedure? (TKA)

| Author | N | Followup (years) | Satisfied (%) |
|-------------------------------|--------|---------------------|------------------|
| Anderson et al. [2] | 74 | 1–5.5 | 89 |
| Noble et al. [22] | 253 | 1 | 75 |
| Robertsson et al. [23] | 27,372 | 2–17 | 82 |
| Wylde et al. [26] | 228 | 2 | 85 |
| Hawker et al. [12] | 1193 | 2–7 | 85 |
| Heck et al. [14] | 291 | 2 | 88 |
| <i>Bourne et al CORR 2010</i> | 1703 | 1 | 81 |

Dissatisfied: 11% to 25%

Which factors influence satisfaction??

M Bonnin & Al. KSSTA 2010

1. Objective result?
2. Number of pre-op procedures on the knee?
3. Duration of the pre-operative pain?
4. Age at surgery
5. Satisfaction of the pre-operative expectancies?

YES

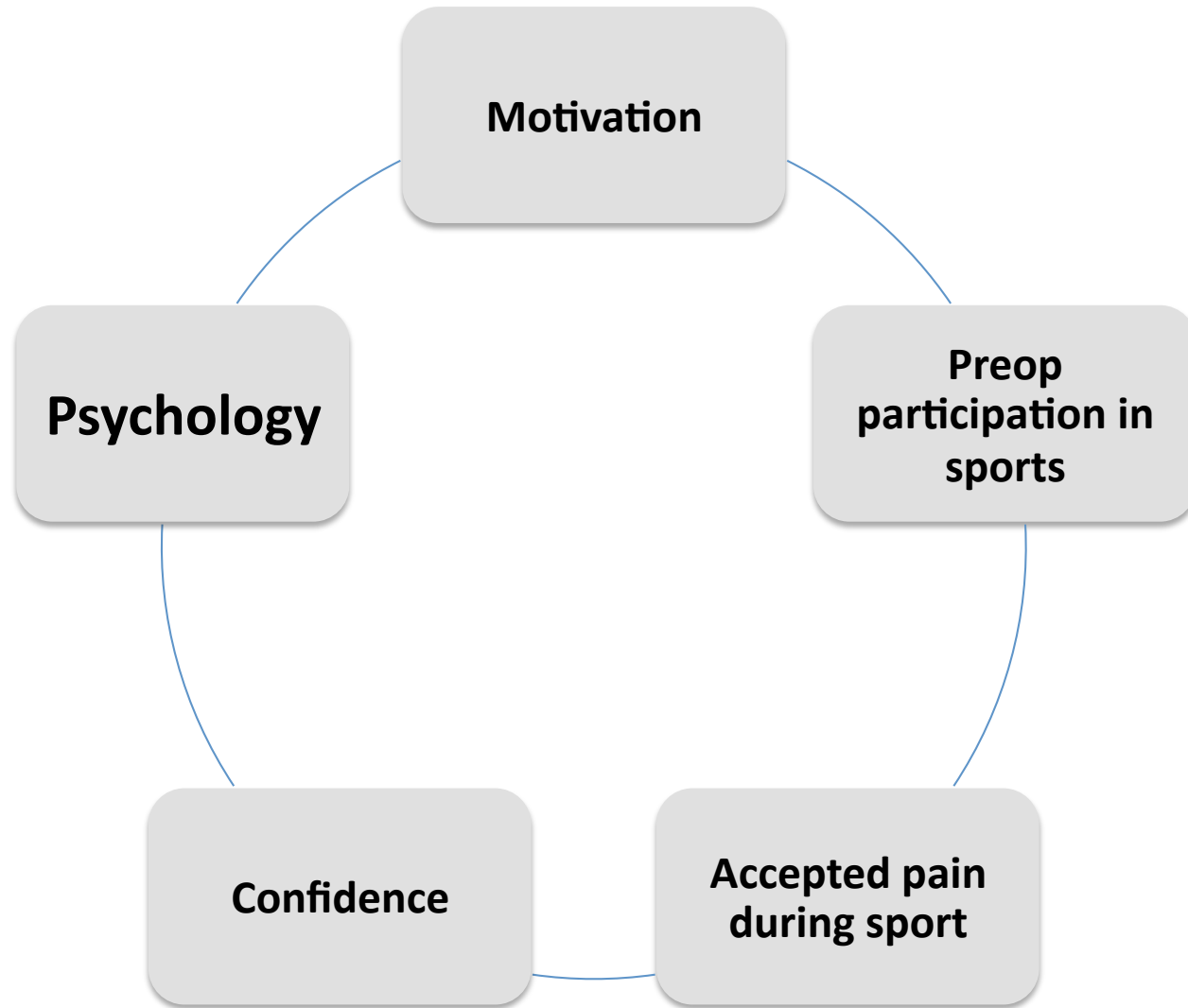
NO

NO

NO

YES

Satisfaction of preop expectancies??



Predicting factors for sport participation

- Iorio. CORR 2006
- Williams CORR 2012
- Bonnin KSSTA 2010

PATIENT

- Preop participation (UCLA score)
- Motivation for sport
- Young age
- Male
- Low BMI

p<0.001

SURGERY

- Objective result
- Functional score
- Pain score

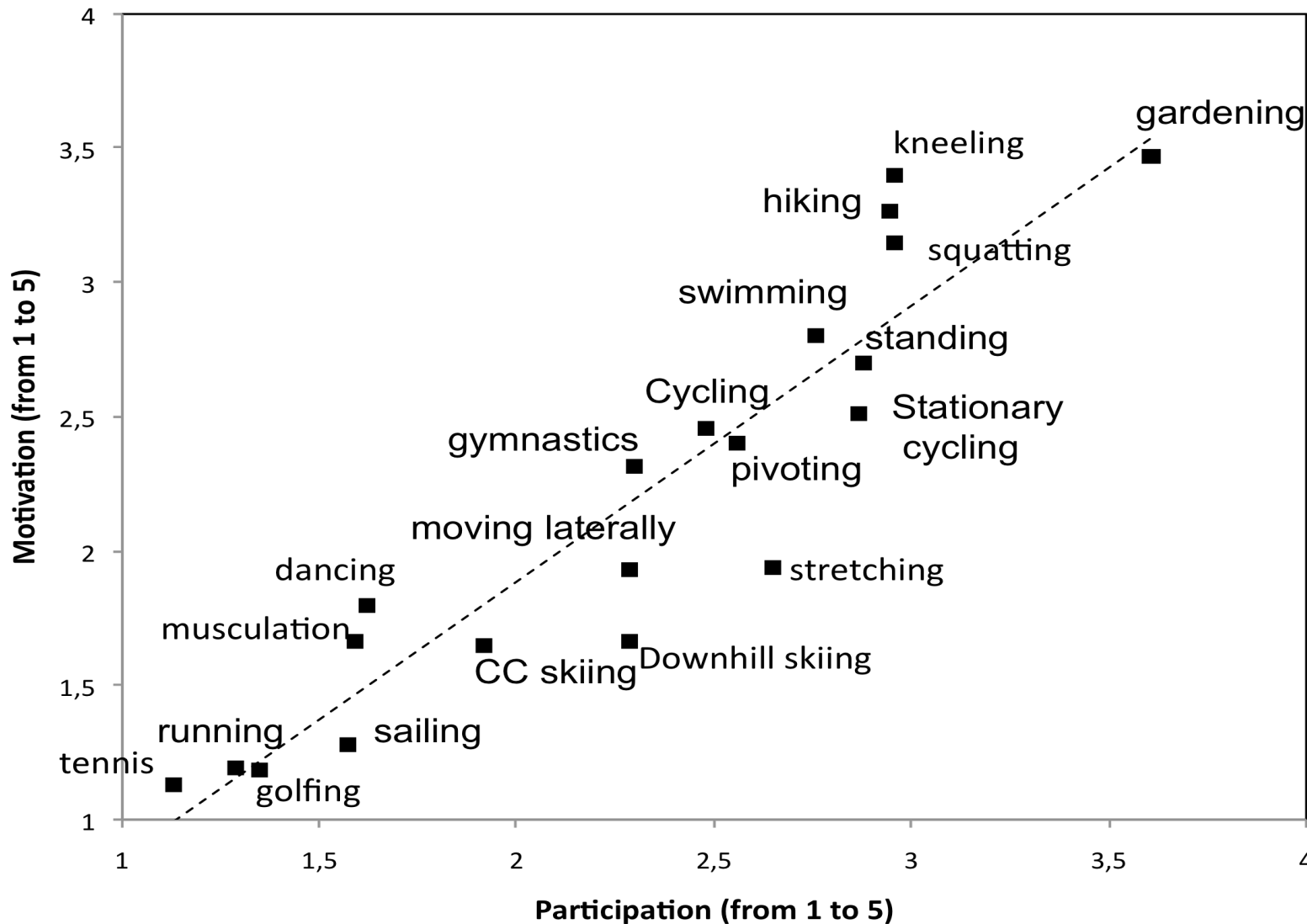
p<0.001

- Type of implant: no influence

P>0.05

Motivation / Participation

M Bonnin & Al. KSSTA 2010



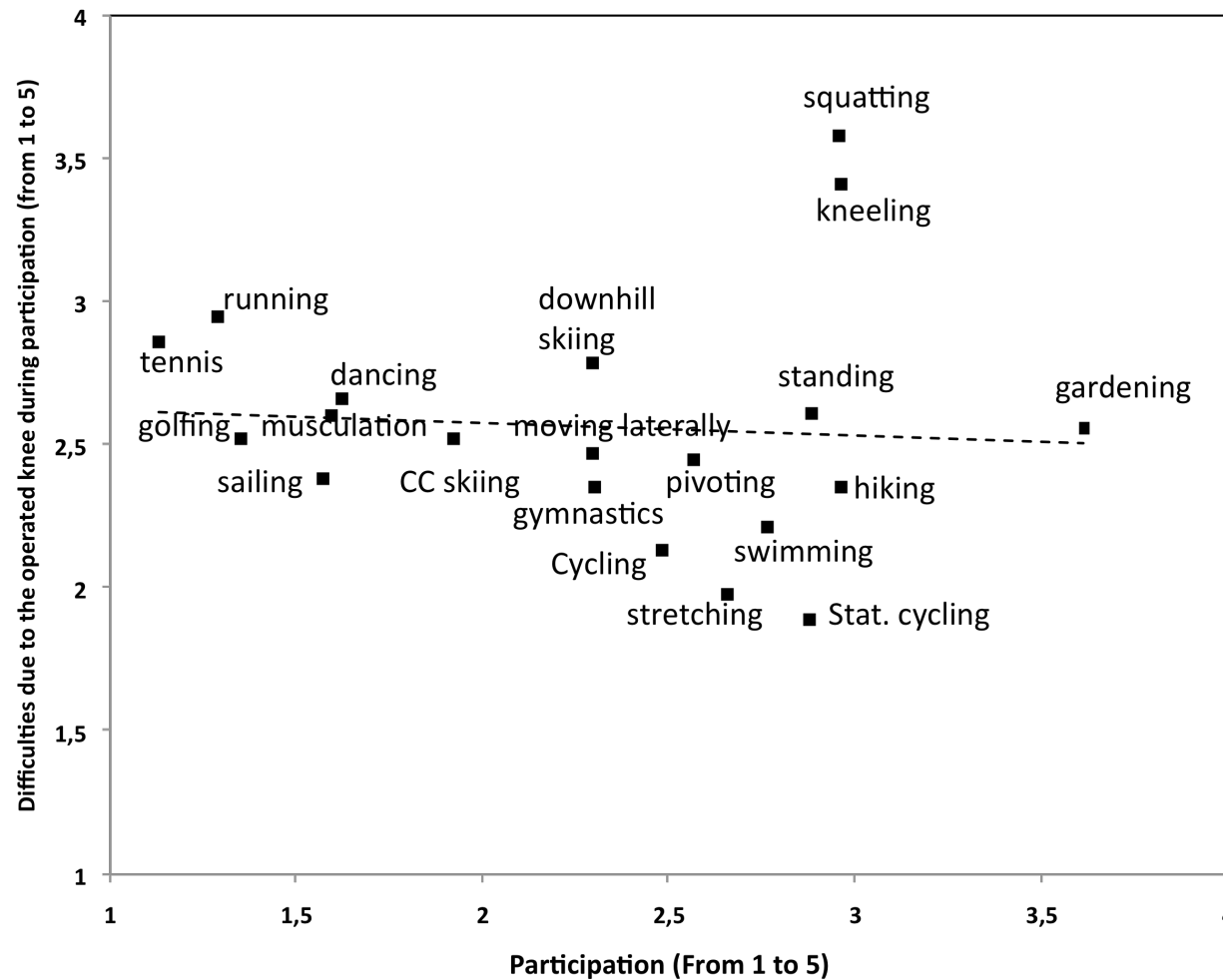
$r = 0.971$

$p = 0.000$

Accepted pain during participation

M Bonnin & Al. KSSTA 2010

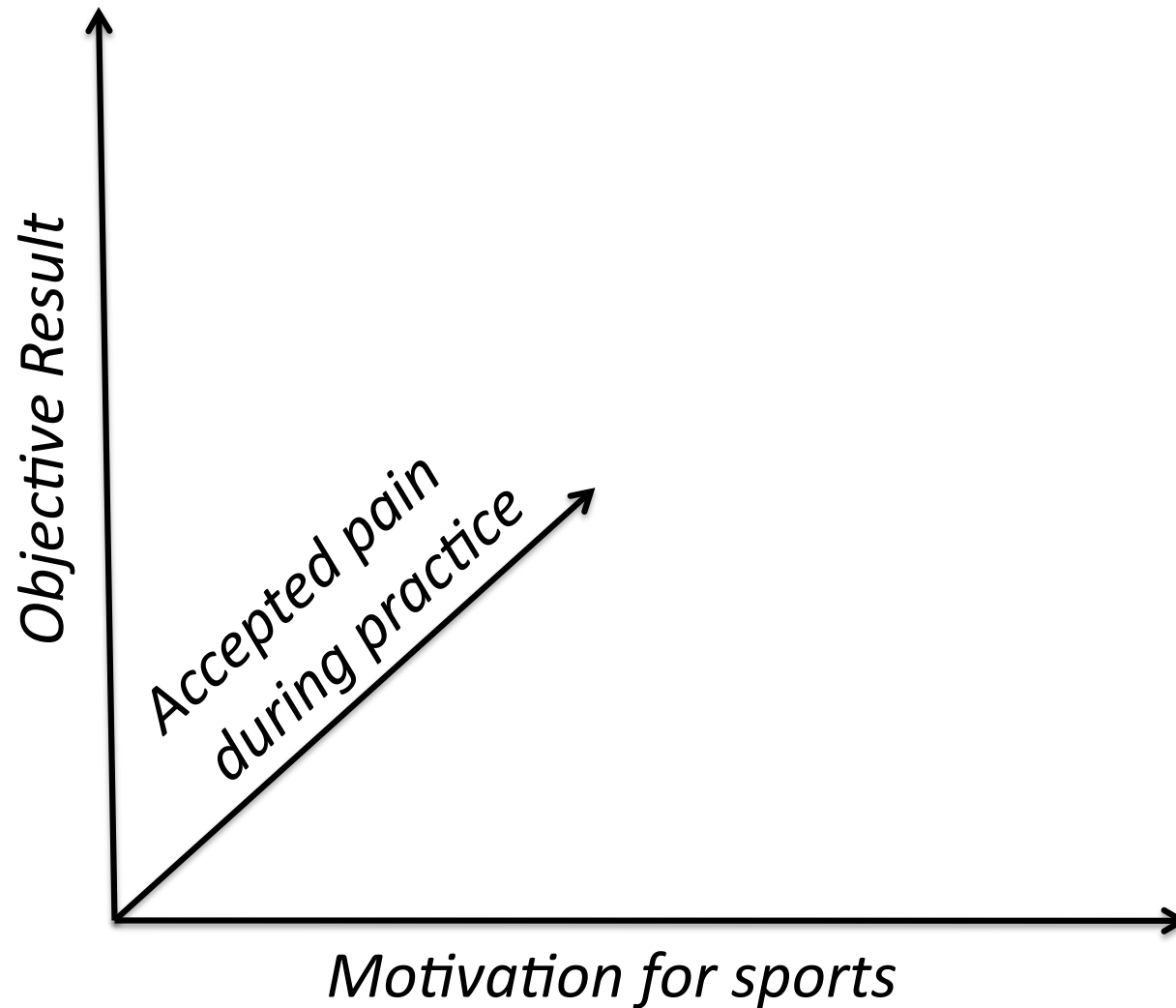
Participation / Difficulties due to the operated knee



$r = -0.143$
 $p = 0.547$

Function > « Symptom free » knee

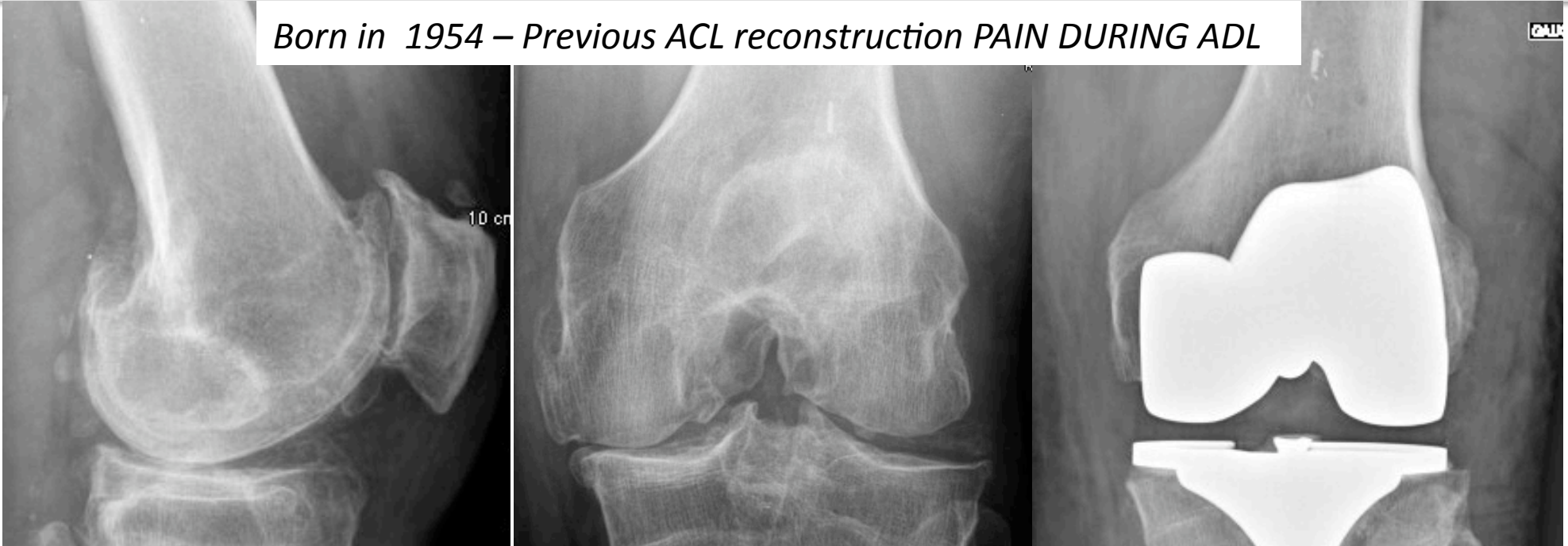
Satisfaction: **3-Dimensional paradigm**



Situation #1:

Cannot practice sport anymore

Born in 1954 – Previous ACL reconstruction PAIN DURING ADL



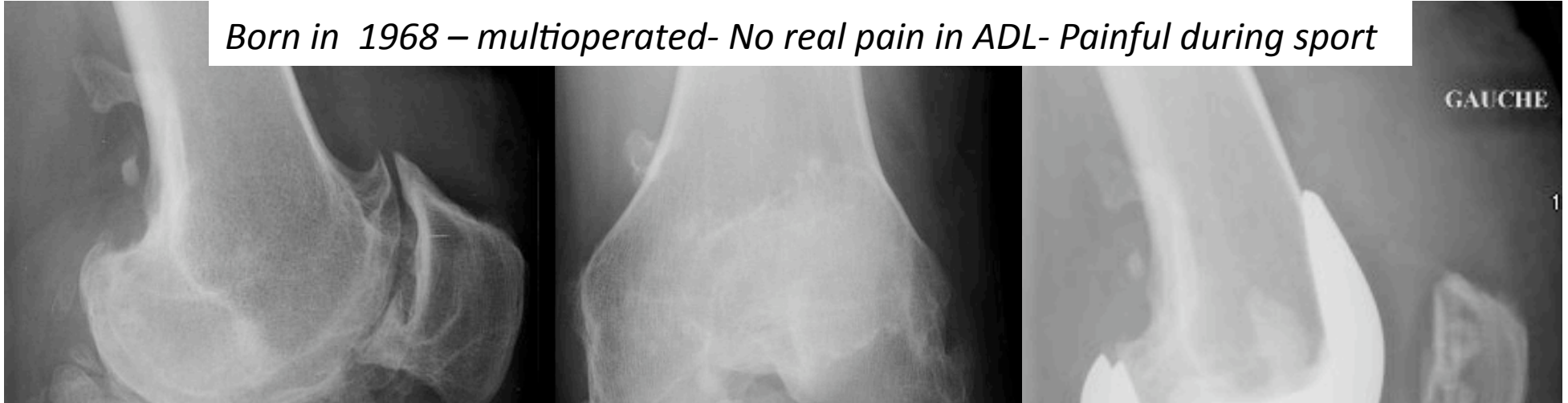
Can we promise return to sport
after TKA?

Which limitations ?

Situation #2:

Still practice Ice Hockey

Born in 1968 – multioperated- No real pain in ADL- Painful during sport



Are we sure to improve patient's
QoL?

Can we implant a TKA just because
of pain during sport?

Situation #3:

Still practice mountain climbing

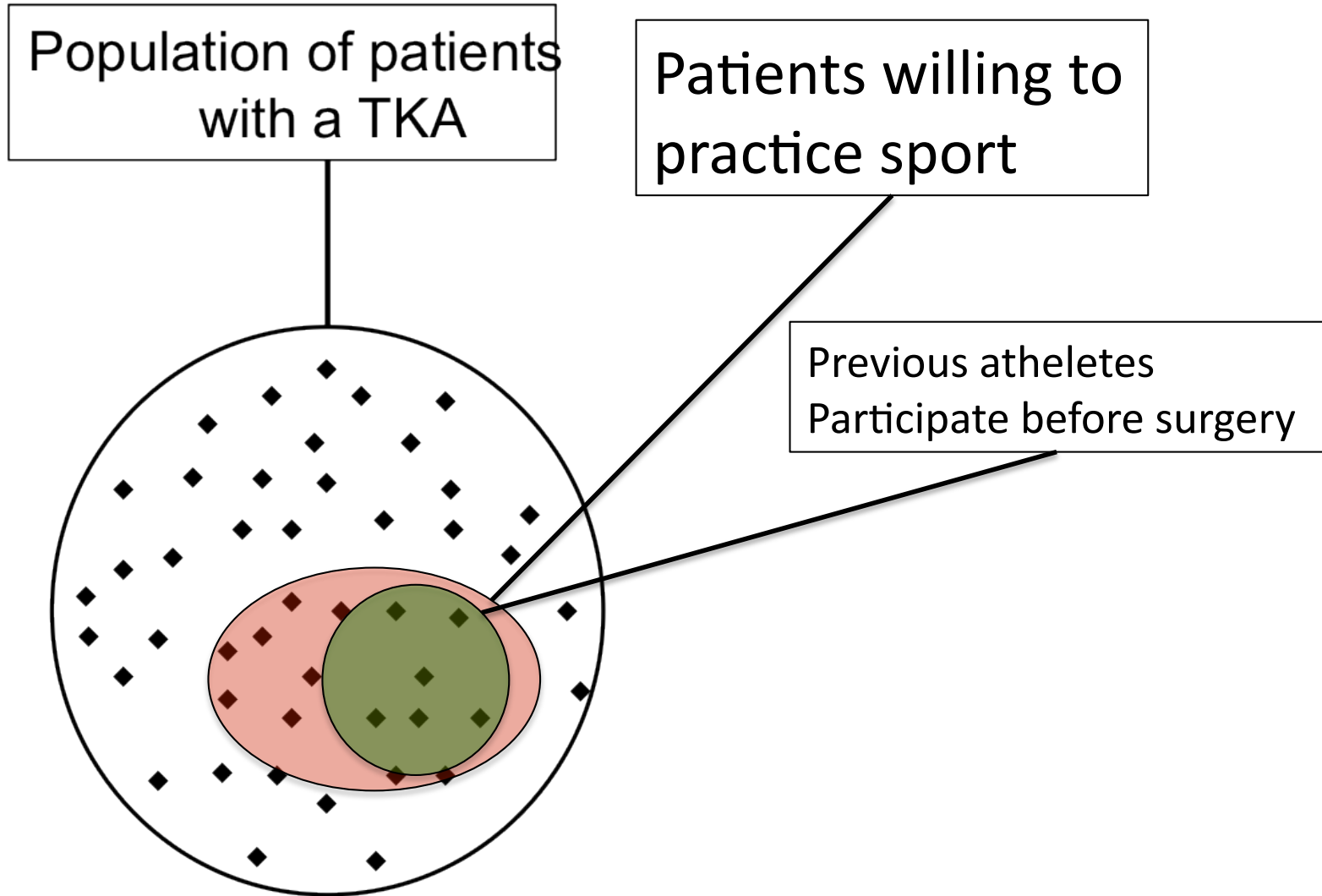
Born in 1943 – Lateral meniscectomy 20 y ago – Pain in ADL but still practice his passion



TKA – UKA- Osteotomy?

1

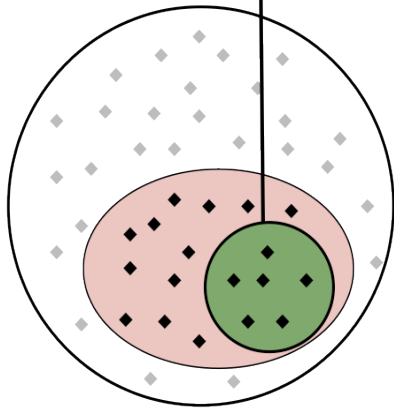
Can patients practice sport after TKA?



1

Can patients practice sport after TKA?

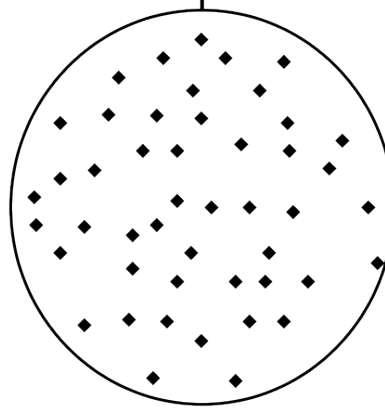
Previous athletes
Participate before surgery



- Diduch 1997
- Mont AJSM 2002
- Mallon JoA 1993

STRENUOUS SPORTS: 100%

Population of patients
with a TKA

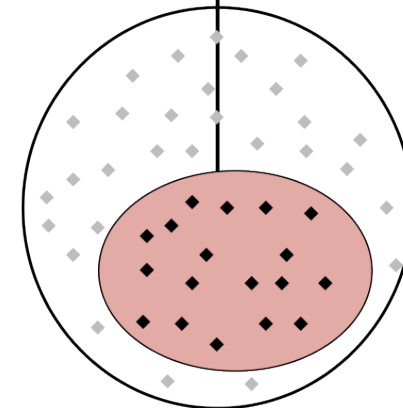


- Weiss & Noble CORR 2003-6
- Dahm JoA
- Bonnin et al KSSTA 2002 & 2003

STRENUOUS SPORTS: 10%

*Same as control group
(Ph Noble 2006)*

Patients willing to
practice sport



- Bonnin et al KSSTA 2012 & 2013

STRENUOUS SPORTS: 63%

2

Which level can patients reach?



Which level can patients reach?

Mallon J Arthroplasty 1993

- N = 83 (age: 65 y)
 - Return to golf: 18 weeks
 - 3.7 time a week
- Pain after playing: 36%
 - Decreased level (handicap + 4.6)
 - Decreased drive length



**No patient return to the « pre-pathology »
level**

3

Does TKA limits participation?

Bonnin KSSTA 2010

«Why I do not practice?

■ BECAUSE OF MY KNEE

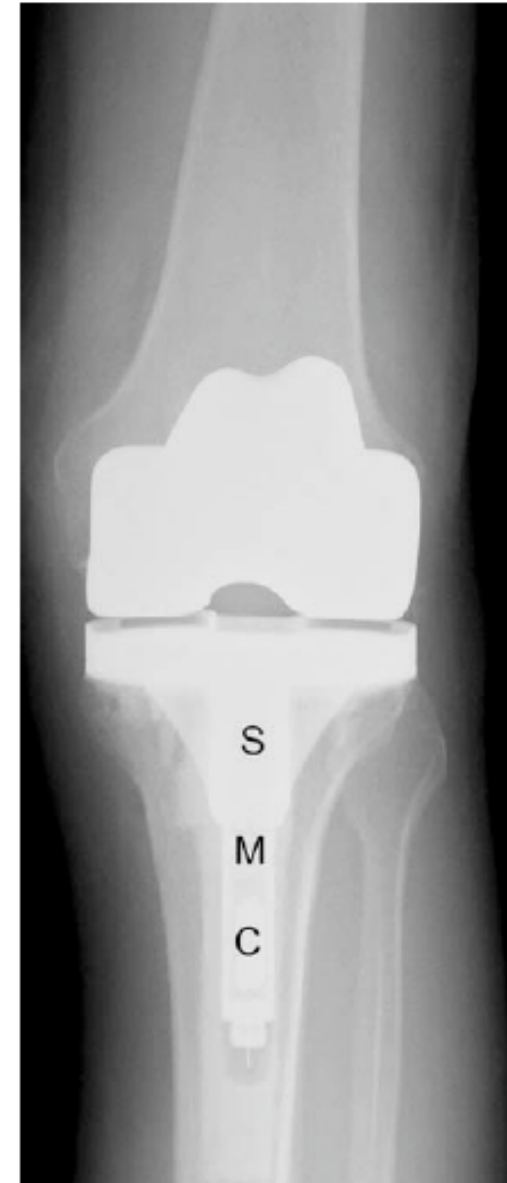
■ FOR ANOTHER REASON

Is sport dangerous for TKAs' ?

D'Lima CORR 2008 - J Biomech 2008 - CORR 2011

Stress In Vivo on TKA

- Jogging/ Running: 3 to 4 X BW
- Golfing (swing) : 4 X BW
- Tennis: 3 to 4 X BW
- Skiing: 3 to 6 X BW



Is sport dangerous for TKAs' ?

D'Lima CORR 2008 - J Biomech 2008 - CORR 2011

But tolerance depends on:

- Muscles
- Weight
- Size of the knee (implant)
- Bone
- Fixation
- ...



Is sport dangerous for TKAs' ?

- Mont AJSM 2002: Tennis
- Mallon JoA 1993: Golf
- Diduch JBJS 1997: Young active
- Long JBJS 2014: Young active
- Berry AAOS 2010: Impact sports

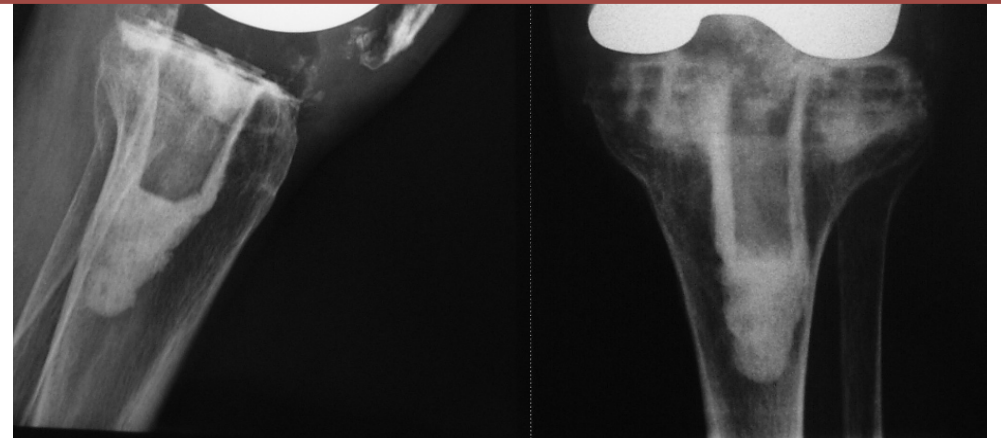


No more failures

Sport trauma is dangerous for TKAs'

- Practice only sports that you know
- Practice below you standard level
- Prepare with good physiotherapy

- Muscle atrophy
- Loss of proprioception



0.3 to 2.5% TKA

5

Which rehabilitation?

Second phase of rehabilitation
at 6 months

- Proprioception
- Quadriceps strengthening
- Treadmill
- Sport situation

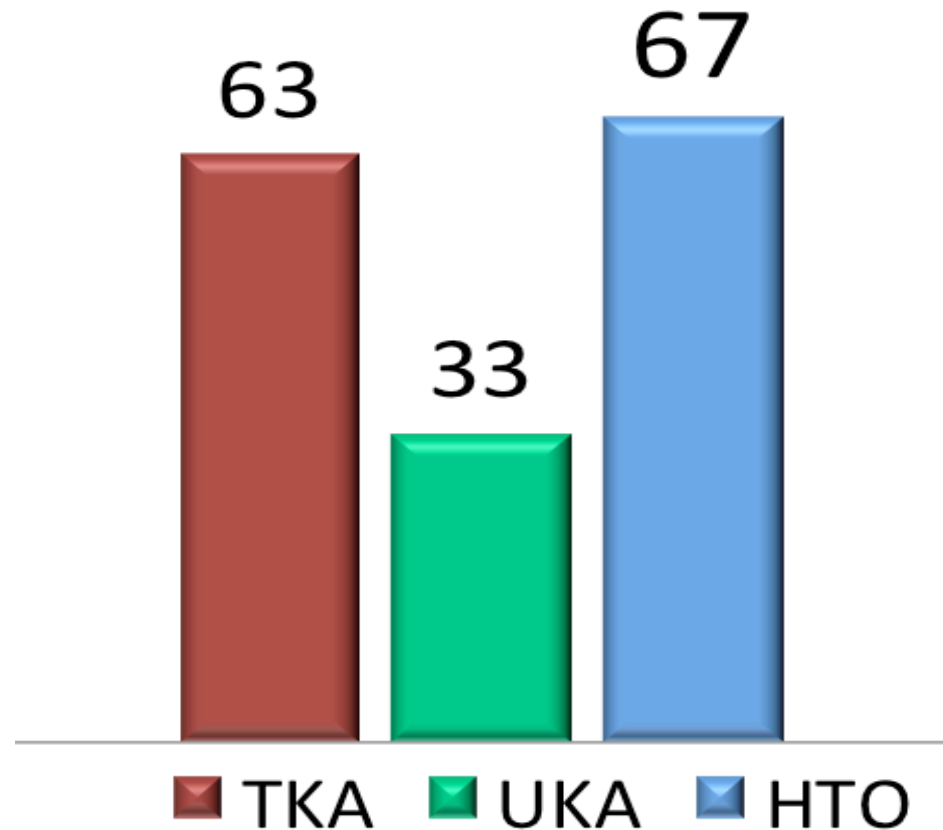


6

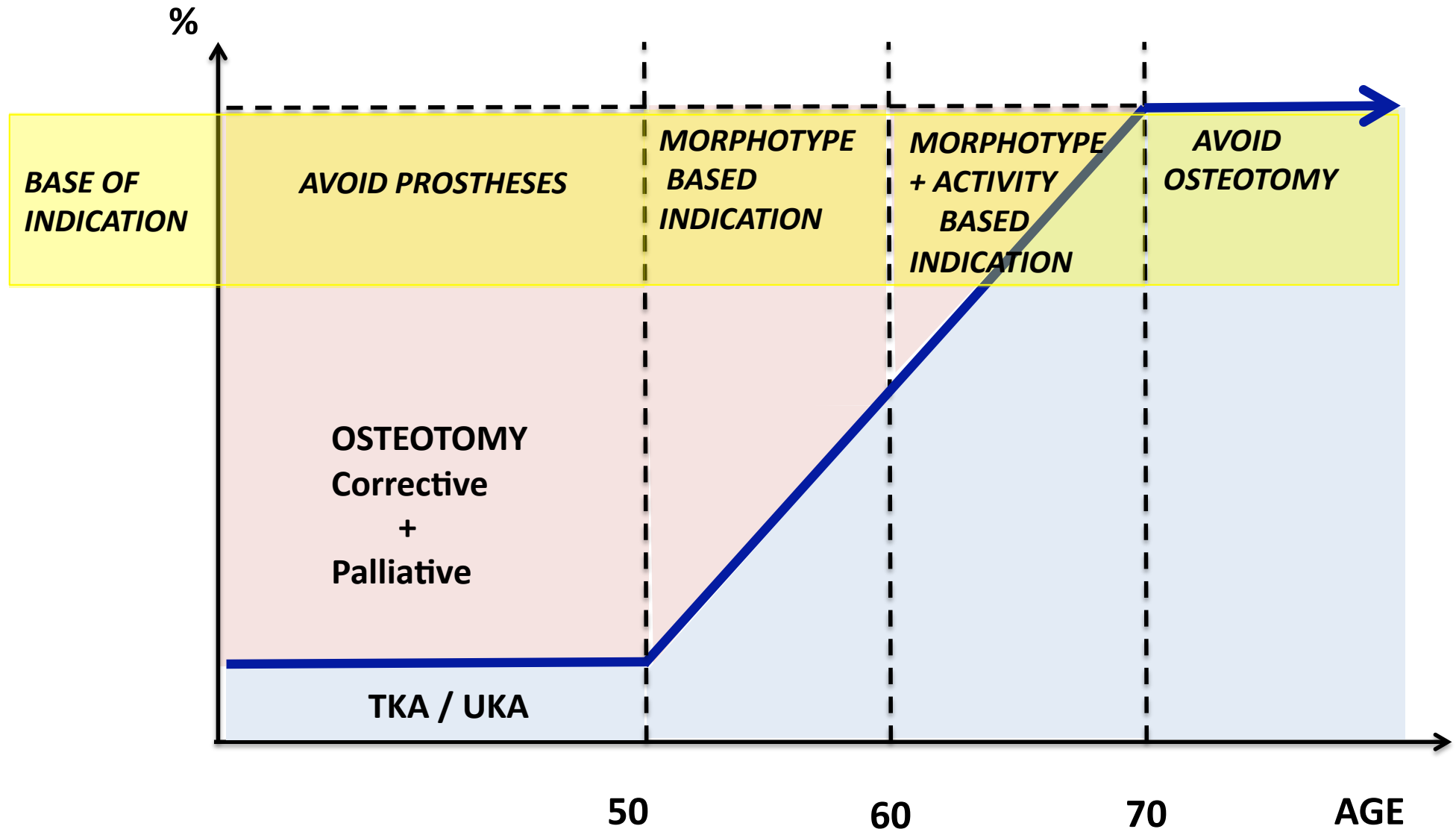
Which strategy: TKA vs UKA vs HTO ?

Bonnin KSSTA 2010 & 2013

% of participation in impact sports (motivated patients)



Which strategy: TKA vs UKA vs HTO ?



Take home messages

1. 60% do regularly impact sports
2. 20% of must stop impact sport
3. Lower level
4. Avoid sports trauma
5. Don't forget Osteotomy

