

# Dreiländertagung ACHD 2021 – Chronischer Schmerz



Schweizer  
Paraplegiker  
Zentrum



Zurich University  
of Applied Sciences



## Unterschiede in der Diagnostik zwischen Orthopädie und Physiotherapie - Too much medicine...

Prof. Dr. Hannu Luomajoki, PT OMT

Leiter Master Program MSK Physiotherapie ZHAW

# Was ich sagen werde

- Value based health care – was ist eigentlich wichtig?
- Struktur basiertes Diagnostizieren ist überwertet, teuer, und manchmal sogar schädlich
- Es wird zu viel operiert
- In den häufigsten msk Diagnosen ist physiotherapeutisches Vorgehen gleich effektiv wie das orthopädisches Operieren, aber kostet weniger und hat viel tiefere Risiken und Nebenwirkungen
- Ein ganzheitlicheres Vorgehen beim Diagnostizieren / Befunden ist nötig und muss in Zukunft viel höheren Stellenwert haben



# Muskuloskelettale Beschwerden verursachen die grössten Kosten im Gesundheitswesen

Beschwerden am Bewegungsapparat sind der häufigste Grund für Hospitalisationen und Operationen - 11% aller Gesundheitskosten (**insg. 33 Milliarden / Jahr**). (Bundesamt für Statistik <http://www.bfs.admin.ch/>).

Schmerzen des Bewegungsapparates verursachen in der Schweiz jährlich 220 000 Hospitalisationen und **über 150'000 Operationen**.



[ VIEWPOINT ]

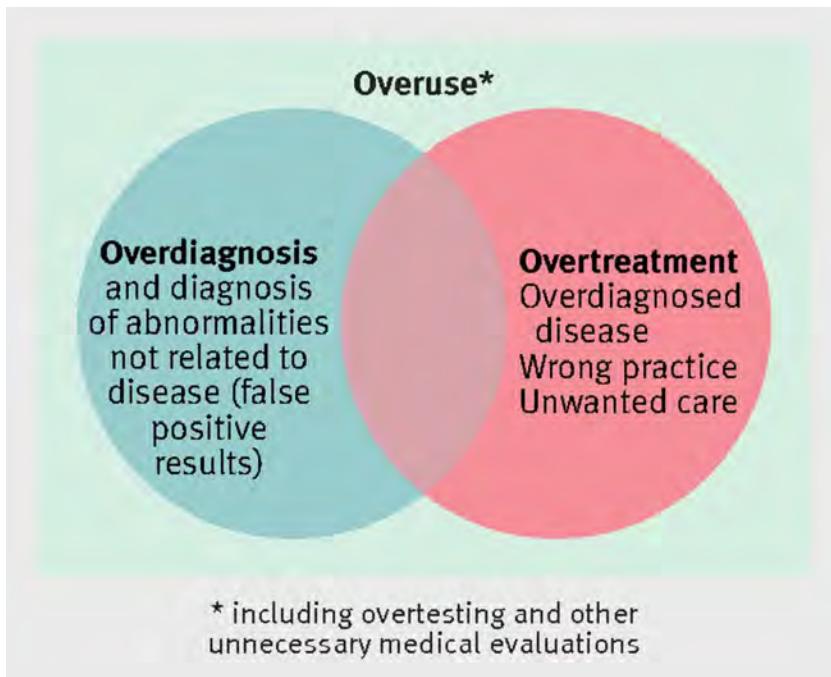
JEREMY S. LEWIS, PT, PhD, FCSP<sup>1,3</sup> • CHAD E. COOK, PT, MBA, PhD, FAPTA<sup>4,5</sup>  
TAMMY C. HOFFMANN, PhD<sup>6</sup> • PETER O'SULLIVAN, PT, PhD<sup>7,8</sup>

# The Elephant in the Room: Too Much Medicine in Musculoskeletal Practice

*J Orthop Sports Phys Ther 2020;50(1):1-4, doi:10.2519/jospt.2020.0601*

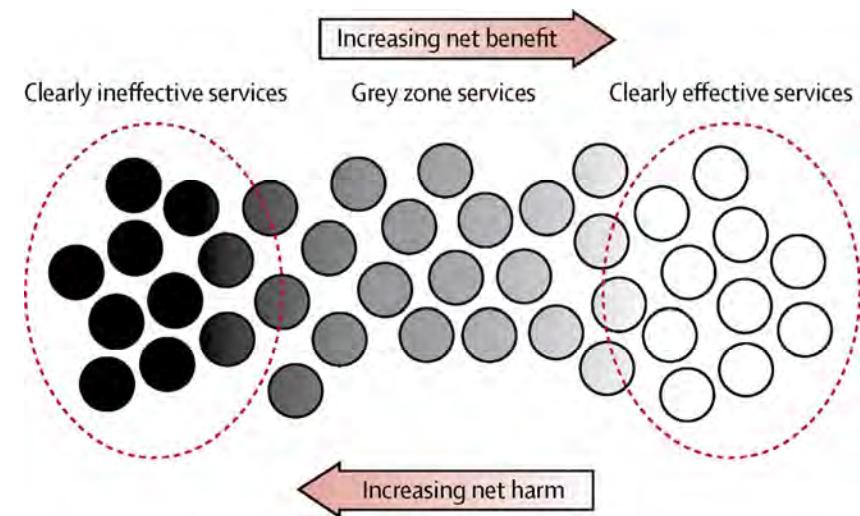
# High value care vs. Low value care

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...high value care means...

Do meaningful things low cost which



# Entmystifizieren

Beispiel strukturelle Befunde in MR-Untersuchungen:  
Vergleiche zwischen Gesunden und Patienten mit  
Rückenschmerzen

**Kein Unterschied zwischen Gesunden und Patienten!**

## Systematic Literature Review of Imaging Features of Spinal Degeneration in Asymptomatic Populations

W. Brinjikji, P.H. Luetmer, B. Comstock, B.W. Bresnahan, LE Chen, R.A. Deyo, S. Halabi, J.A. Turner, A.L. Avins, K. James, J.T. Wald, D.F. Kallmes, and J.G. Jarvik

Table 2: Age-specific prevalence estimates of degenerative spine imaging findings in asymptomatic patients<sup>a</sup>

Imaging Finding	Age (yr)						
	20	30	40	50	60	70	80
Disk degeneration	37%	52%	68%	80%	88%	93%	96%
Disk signal loss	17%	33%	54%	73%	86%	94%	97%
Disk height loss	24%	34%	45%	56%	67%	76%	84%
Disk bulge	30%	40%	50%	60%	69%	77%	84%
Disk protrusion	29%	31%	33%	36%	38%	40%	43%
Annular fissure	19%	20%	22%	23%	25%	27%	29%
Facet degeneration	4%	9%	18%	32%	50%	69%	83%
Spondylolisthesis	3%	5%	8%	14%	23%	35%	50%

<sup>a</sup> Prevalence rates estimated with a generalized linear mixed-effects model for the age-specific prevalence estimate (binomial outcome) clustering on study and adjusting for the midpoint of each reported age interval of the study.

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## Prevalence of abnormalities in knees detected by MRI in adults without knee osteoarthritis: population based observational study (Framingham Osteoarthritis Study)

BMJ 2012;345:e5339 doi: 10.1136/bmj.e5339 (Published 29 August 2012)

Fast jeder über 50 J. hat pathologische Befunde im Knie



### Abstract

**Objective** To examine use of magnetic resonance imaging (MRI) of knees with no radiographic evidence of osteoarthritis. **Participants** 710 people aged >50 who had no radiographic evidence of knee osteoarthritis (Kellgren-Lawrence grade 0) and who underwent MRI of the knee.

**The prevalence of at least one type of pathology ("any abnormality") was high in both painful (90-97%, depending on pain definition) and painless (86-88%) knees.**

**Conclusions** MRI shows lesions in the tibiofemoral joint in most middle aged and elderly people in whom knee radiographs do not show any features of osteoarthritis, regardless of pain.

# Ultrasound of the Shoulder: Asymptomatic Findings in Men

Gandikota Girish, Lucas G. Lobo, Jon A. Jacobson, Yoav Morag,  
Bruce Miller, David A. Jamadar



AJR:197, October 2011  
© American Roentgen Ray Society

Fast alle Gesunde haben «Pathologien» in US Untersuchung!



**MATERIALS AND METHODS.** The study sample comprised **51 consecutively enrolled subjects who had no symptoms in either shoulder.**

**RESULTS.** Twenty-five right and 26 left shoulders were imaged. The subject age range was 40–70 years. **Ultrasound showed subacromial-subdeltoid bursal thickening in 78% (40/51) of the subjects, acromioclavicular joint osteoarthritis in 65% (33/51), supraspinatus tendinosis in 39% (20/51), subscapularis tendinosis in 25% (13/51), partial-thickness tear of the bursal side of the supraspinatus tendon in 22% (11/51), and posterior glenoid labral abnormality in 14% (7/51).** All other findings had a prevalence of 10% or less.

**CONCLUSION.** Asymptomatic shoulder abnormalities were found in **96% of the subjects.**

## Folie 8

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LH(1)

Luomajoki Hannu (luom); 17.08.2020

**Prevalence of Radiographic  
Findings Thought to  
Be Associated with  
Femoroacetabular Impingement  
in a Population-based Cohort of  
2081 Healthy Young Adults<sup>1</sup>**

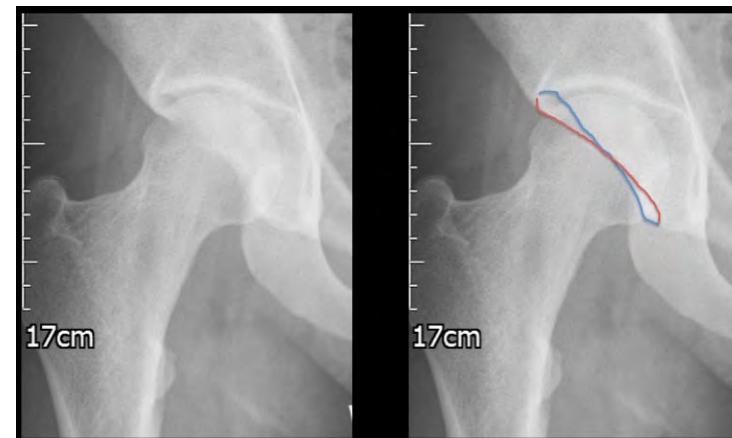
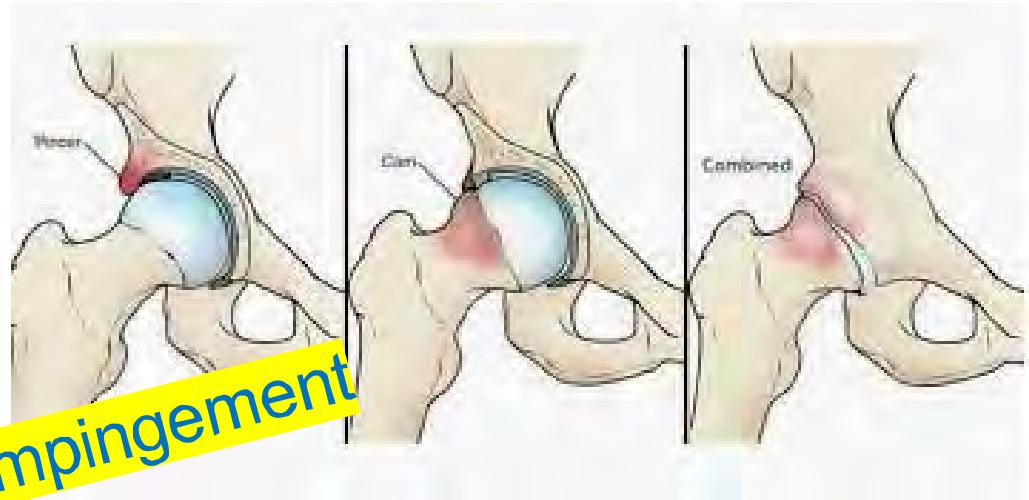
Lene B. Laborie, MD  
Trude G. Lehmann, MD  
Ingvild Ø. Engesæter, MD  
Deborah M. Eastwood, MB, FRCS  
Lars B. Engesæter, MD, PhD  
Karen Rosendahl, MD, PhD

*radiology.rsna.org n Radiology: Volume 260: Number 2—*

August 2011

Jeder zweite Gesunde hat Hüftimpingement

Cam-type deformities were seen in 868 male and 1192 female (n=2081) participants, respectively, as follows: pistol-grip deformity, 187 (21.5%) and 39 (3.3%); focal femoral neck prominence, 89 (10.3%) and 31 (2.6 %); and flattening of the lateral femoral head, 125 (14.4%) and 74 (6.2%). Pincer-type deformities were seen in the same numbers of male and female participants, respectively, as follows: posterior wall sign, 203 (23.4%) and 131 (11.0%); and excessive acetabular coverage, 127 (14.6%) and 58 (4.9%) (all P<.001, according to sex distribution). The crossover sign was seen in 446 (51.4%) and 542 (45.5%) of the male and female participants, respectively ( P = .004).



Case courtesy of Dr Robert Foley,

RESEARCH ARTICLE

Open Access



# Diagnostic validity and triage concordance of a physiotherapist compared to physicians' diagnoses for common knee disorders

S. Décaire<sup>1,2\*</sup>, M. Fallaha<sup>3</sup>, B. Pelletier<sup>3</sup>, P. Frémont<sup>4</sup>, J. Martel-Pelletier<sup>5</sup>, J.-P. Pelletier<sup>5</sup>, D. E. Feldman<sup>1</sup>, M.-P. S...  
P.-A. Vendittoli<sup>2,3</sup> and F. Desmeules<sup>1,2</sup>

## Abstract

**Background:** Emergence of more autonomous roles for physiotherapists has led to increasing their diagnostic capabilities. Therefore, we aimed to evaluate diagnostic validity and triage concordance between a physiotherapist and expert physicians and to assess the diagnostic value of a musculoskeletal examination (ME) without imaging.

**Methods:** This is a prospective diagnostic study. Patients consulting for any knee complaint were independently diagnosed and triaged by one physiotherapist and one expert physician (orthopaedic surgeons or sport medicine specialists). The physiotherapist completed only a ME, while the physicians also had access to imaging to make their diagnosis. Raw agreement proportions and Cohen's kappa ( $\kappa$ ) were calculated to assess inter-rater agreement. Sensitivity (Se) and specificity (Sp), as well as positive and negative likelihood ratios ( $LR+/-$ ) were calculated to assess the validity of the ME compared to the physicians' composite diagnosis.

**Results:** Primary knee diagnoses included anterior cruciate ligament injury ( $n = 8$ ), meniscal injury ( $n = 36$ ), patellofemoral pain ( $n = 45$ ) and osteoarthritis ( $n = 79$ ). Diagnostic inter-rater agreement between the physiotherapist and physicians was high ( $\kappa = 0.89$ ; 95% CI 0.83–0.94). Inter-rater agreement for triage recommendations of surgical candidates was good ( $\kappa = 0.73$ ; 95% CI 0.60–0.86). Se and Sp of the physiotherapist's ME ranged from 82.0 to 100.0% and 96.0 to 100.0% respectively and  $LR+/-$  ranged from 23.2 to 305 and from 0.03 to 0.09 respectively.

**Conclusions:** There was high diagnostic agreement and good triage concordance between the physiotherapist and physicians. The ME without imaging may be sufficient to diagnose or exclude common knee disorders for a large proportion of patients. Replication in a larger study will be required as well as further assessment of innovative multidisciplinary care trajectories to improve care of patients with common musculoskeletal disorders.

**Keywords:** Diagnosis, Knee disorders, Physiotherapist

Physios können gleich gut untersuchen  
wie Orthopäden... Ohne Rö und MRI...



## Hüftgelenkersatz - Überarztung?

Hip replacement  
surgery  
World Champion  
= Switzerland



Wird in der Schweiz zu viel  
operiert oder haben andere  
Länder einen Nachholbedarf?

Comparis, Felix Schneuwly

# Arthroscopic surgery for degenerative knee arthritis and meniscal tears: a clinical practice guideline

Beispiel Arthroskopie Knie

Reed A C Siemieniuk,<sup>1 2</sup> Ian A Harris,<sup>3 4</sup> Thomas Agoritsas,<sup>1 5</sup> Rudolf W Poolman,<sup>6</sup>  
Romina Brignardello-Petersen,<sup>1 7</sup> Stijn Van de Velde,<sup>8</sup> Rachelle Buchbinder,<sup>9 10</sup>  
Martin Englund,<sup>11</sup> Lyubov Lytvin,<sup>12</sup> Casey Quinlan,<sup>13</sup> Lise Helsingren,<sup>14</sup> Gunnar Knutzen,<sup>15</sup>  
Nina Rydland Olsen,<sup>16</sup> Helen Macdonald,<sup>17</sup> Louise Hailey,<sup>18</sup> Hazel M Wilson,<sup>19</sup>  
Anne Lydiatt,<sup>20</sup> Annette Kristiansen<sup>21 22</sup>



## Example knee arthroscopy

Arthroscopic surgery for degenerative knee: systematic review and meta-analysis of benefits and harms

J B Thorlund,<sup>1</sup> C B Juhl,<sup>1,2</sup> E M Roos,<sup>1</sup> L S Lohmander<sup>1,3,4</sup>

the bmj | BMJ 2015;350:h2747

Vergleich Effekte...

### WHAT THIS STUDY ADDS

Interventions that include arthroscopy are associated with a small benefit and with harms; the small benefit is inconsequential and of short duration

The benefit is markedly smaller than that seen from exercise therapy as treatment for knee osteoarthritis

These findings do not support the practice of arthroscopic surgery as treatment for middle aged or older patients with knee pain with or without signs of osteoarthritis



- CH: ca. 20'000 Arthroscopies / year
- Effect sizes: Surgery ca 0.14 (costs ambulant ca 3000.- CHF)
- Physio and training: 0.5 – 0.64 (3 months training by physio MTT = 700.-)

## A Randomized Trial of Treatment for Acute Anterior Cruciate Ligament Tears

Richard B. Frobell, Ph.D., Ewa M. Roos, P.T., Ph.D., Harald P. Roos, M.D., Ph.D.,  
Jonas Ranstam, Ph.D., and L. Stefan Lohmander, M.D., Ph.D.

N=121

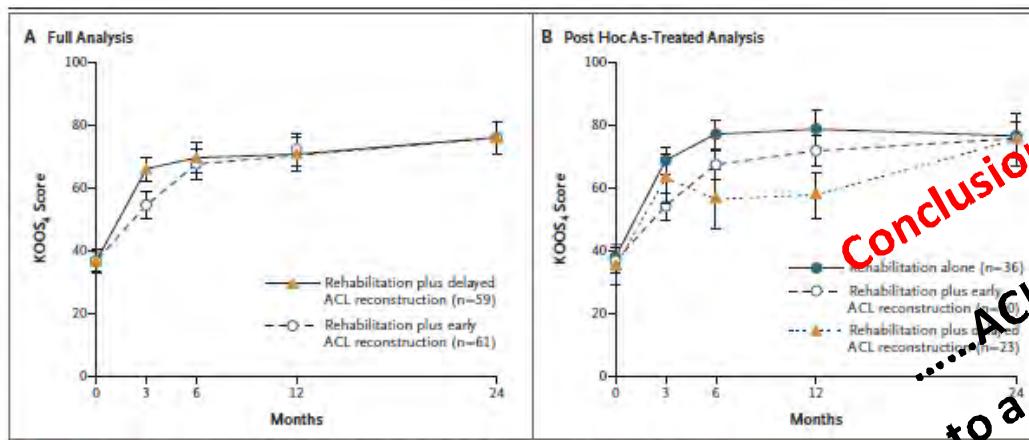


Figure 2. Mean KOOS<sub>4</sub> Scores during the 2-Year Study Period, According to Treatment Group.

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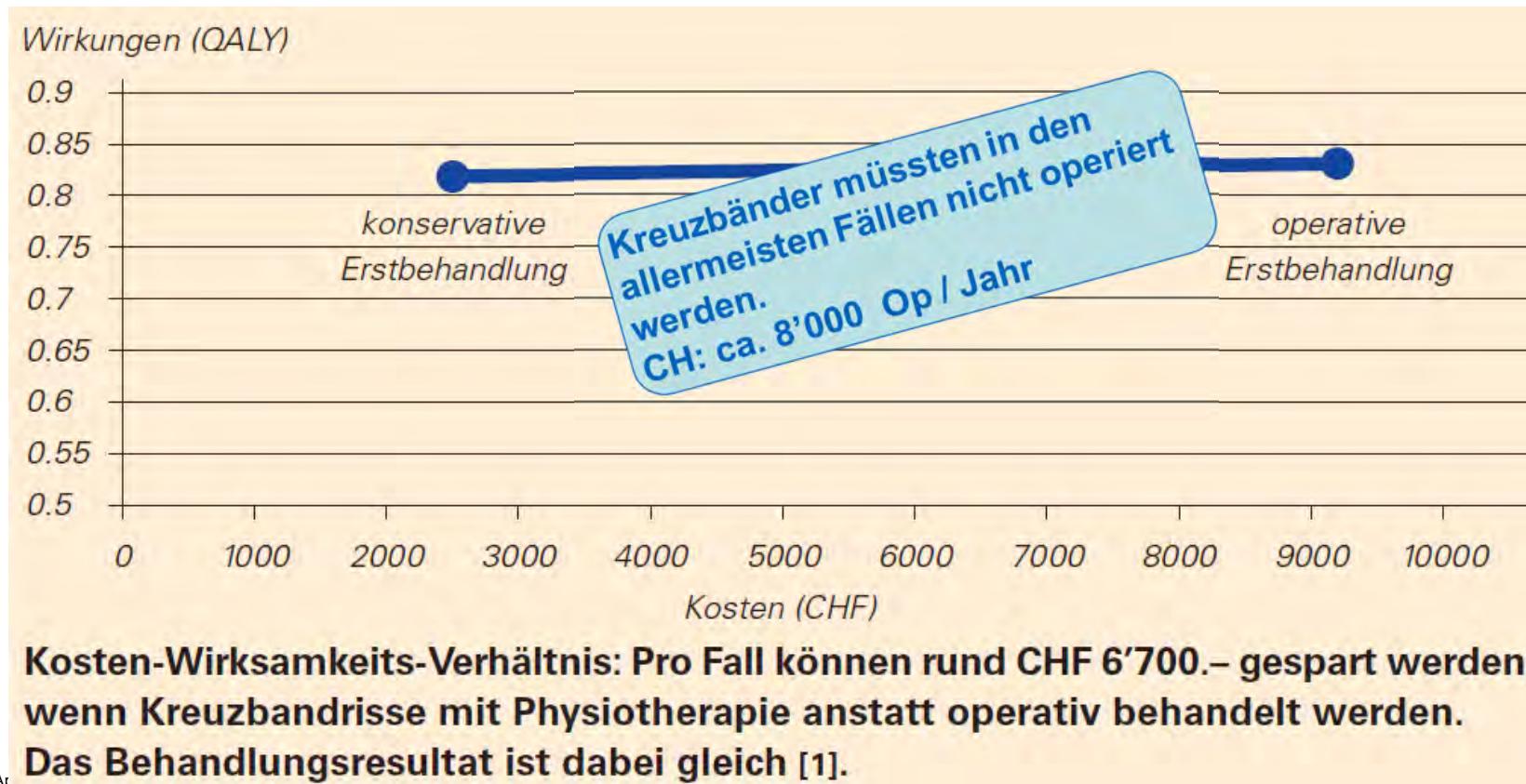
Beispiel Kreuzband

Conclusions

.....ACL reconstruction was not superior  
to a strategy of rehabilitation plus  
optional delayed ACL reconstruction.

## Grössere Kosten, Effekte gleich...

swiss medical board



# Subacromial decompression surgery for adults with shoulder pain: a clinical practice guideline

Per Olav Vandvik,<sup>1,2</sup> Tuomas Lähdeoja,<sup>3,4</sup> Clare Ardern,<sup>5,6</sup> Rachelle Buchbinder,<sup>7</sup> Jaydeep Moro,<sup>8</sup> Jens Ivar Brox,<sup>9</sup> Jako Burgers,<sup>10,11</sup> Qiukui Hao,<sup>12,13</sup> Teemu Karjalainen,<sup>7</sup> Michel van den Bekerom,<sup>14</sup> Julia Noorduyn,<sup>14</sup> Lyubov Lytvyn,<sup>13</sup> Reed A C Siemieniuk,<sup>13</sup> Alexandra Albin,<sup>15</sup> Sean Chua Shunjie,<sup>16</sup> Florian Fisch,<sup>17</sup> Laurie Proulx,<sup>18</sup> Gordon Guyatt,<sup>13</sup> Thomas Agoritsas,<sup>19</sup> Rudolf W Poolman<sup>14</sup>

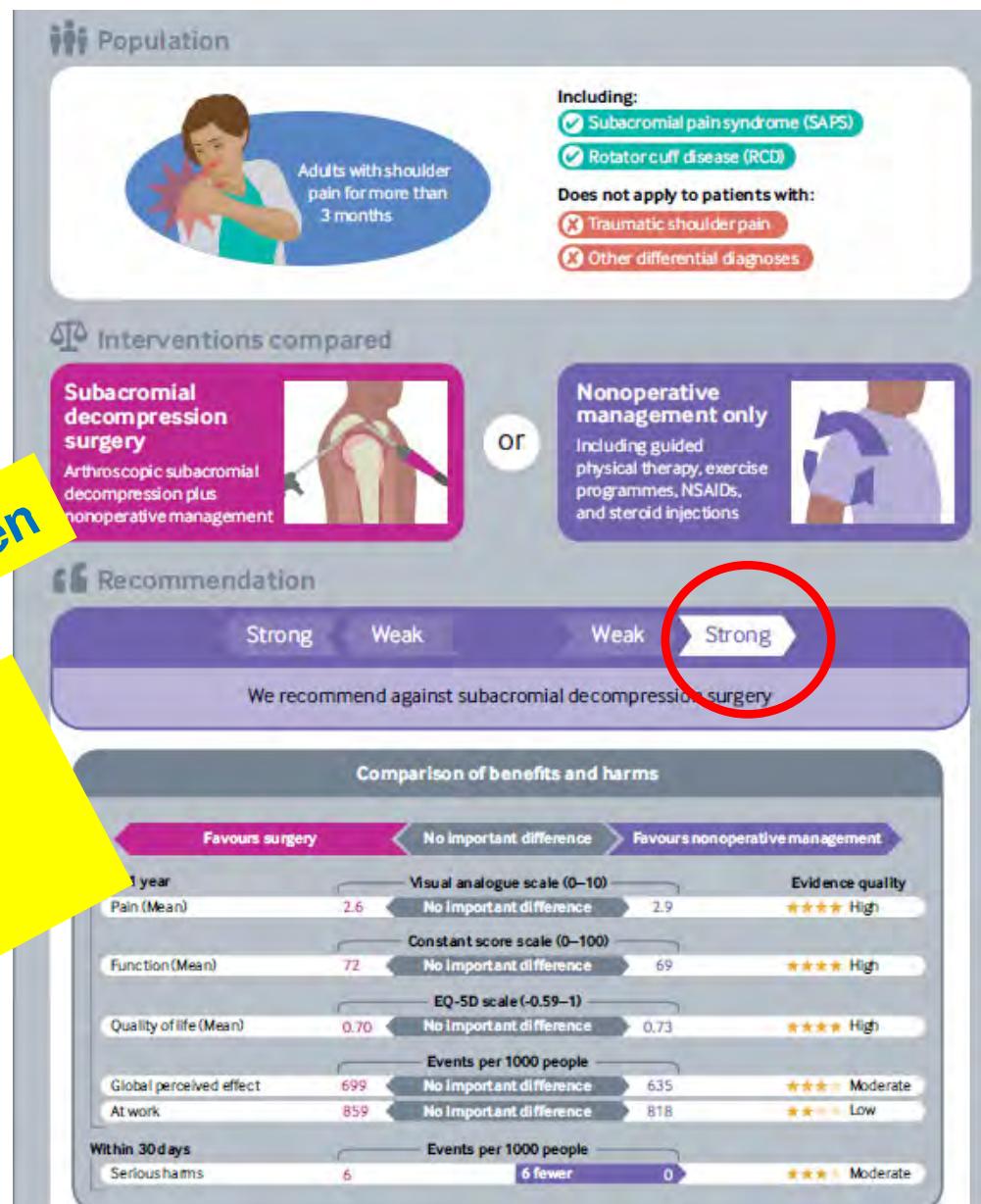
Shoulder

BMJ 2019;364:l294

doi: 10.1136/bmjjournals.2018.01294

Kräftige Empfehlung gegen Operieren  
In CH – 10 000 Schulter  
Op's wegen Rotatoren  
Manchette

Zurich Universities of Applied Sciences and Arts



# Oft wird zu schnell operiert

**EINGRiffe.** In den allermeisten Fällen ist nicht klar, warum jemand Rückenschmerzen hat. Eine Operation ist dann keine gute Idee.

Beobachter 19 / 2018

## DIE ROLLE DER FUNKTIONELLEN THERAPIE

Häufig wäre ambulante Physiotherapie der Chirurgie ebenbürtig

In der Schweiz werden jedes Jahr rund 10 Millionen wegen eines Schulterproblems durchgeführten Eingriffe. Bei einem Grossteil der Patienten kann durch ambulanter Physiotherapie ebenso gute Ergebnisse erzielt werden. Die funktionelle Behandlung erfordert Mobilisierung, Dehnung und Kräftigung.

Hannu Luomajoki

## MedMove 2015

Zurich Universities of Applied Sciences and



Interview mit:  
Prof. PD Hannu Luomajoki  
Zürcher Hochschule für Angewandte Wissenschaften (ZHAW)  
Professor für (Musculoskeletal) Physiotherapy/Physiotherapie  
in der Medizinische Physiotherapie  
Fakultät für Gesundheit

Operation auch selbstverständlich. Und diese dann ausschliesslich abweichen kann. Das ist für Chirurgen doch wie ein Blödsinn.  
In Ausland verlieben die Ärzte nicht an den Anzahl der Operationen!  
Man sieht entsprechend Unterschiede zu den skandinavischen Ländern, Australien oder England. Dort hat der Operateur einen festen Monatshorizont und verlässt nicht mehr jährlich diesen.

Viele Prozesse der orthopädischen OPs unterscheiden sich als Überflieger! Ich kann Ihnen sagen, dass gegen Studien schreibt, dass Physiotherapie genauso effektiv sein kann. Gleichzeitig nehmen OPs aber immer weiter zu.  
Zum Beispiel Verstellungsoperationen an den Wirbelsäule. Verstellungsoperationen werden vor allem bei älteren Leu-

## Arzt Spital Pflege 2014

## Rückenschmerzen – die teure Behandlung ist selten die beste

Rückenprobleme plagen jeden Zweiten mindestens einmal im Jahr, sind aber meist unspezifisch und harmlos. Würde man bei ihrer Behandlung stärker auf Physiotherapie setzen, ließen sich die Kosten erheblich eindämmen. Von Hannu Luomajoki

### NZZ Mittwoch, 9. Juli 2014 ^ Nr. 174

PHYSIOTHERAPIE  
IDEE GESTERN –  
PROGESSCHritte MORGEN

Muskuloskeletale Beschwerden verursachen die grössten Kosten im Gesundheitswesen. Die Evidenz für die Physiotherapie ist gleich gut wie fürs Operieren – doch sie ist viel kostengünstiger. Die entscheidende Frage lautet: Was kann wie physiotherapeutisch behandelt werden?

**Zitronenpreis Schw. ortopädiegesellschaft...**

## MedMove 2015

majoki, zhaw Winterthur.

## schmerzen sind wie »n»

lagen fast jeden Zeitgenossen mindestens . Meist sind diese jedoch unspezifisch und en diese Leiden vermehrt konventionell, also herapie, behandelt, liessen sich deutlich nen.

## PHYSIO ZUERST!

Ist das Knie verletzt, legen sich viele unters Messer. Das ist nicht zwingend die beste Entscheidung: Studien zeigen, dass Physiotherapie genauso wirksam ist wie operieren. Die Gesundheitskosten wegen unnötiger Eingriffe sind enorm. Einer, der nicht müde wird, dies zu predigen, ist ZHAW-Professor Hannu Luomajoki.

Vitamin G 2016

EXPERT OPINION ON PHARMACOTHERAPY, 2018  
VOL. 19, NO. 6, 537–545  
<https://doi.org/10.1080/14656566.2018.1454430>



[Check for updates](#)

REVIEW

## Pharmacotherapy for chronic non-specific low back pain: current and future options

Bart W. Koes, Daan Backes and Patrick J. E. Bindels

Department of General Practice, Erasmus MC, Rotterdam, The Netherlands

Medikamente....

ernüchternd

Table 1. Summary of the evidence on the efficacy of pharmacological treatments on pain and function in patients with chronic low back pain.

Pharmacological treatment	Evidence	Effect on pain	Effect on function
Paracetamol/acetaminophen	1 RCT	Uncertain	Uncertain
NSAIDs	13 RCTs	Small	Small
Muscle relaxants (skeletal)	3 RCTs	Uncertain	Uncertain
Benzodiazepines	2 RCTs	Small	Uncertain
Tricyclic antidepressants	4 RCTs	No	No
Selective serotonin reuptake inhibitors	3 RCTs	No	No
Duloxetine	3 RCTs	Small	Small
Anticonvulsants	2 RCTs	No	No
Tramadol	5 RCTs	Small	Small
Buprenorphine	2 RCTs	Small	Uncertain
Strong opioids <sup>a</sup>	6 RCTs	Small	Small
Other:			
Tanezumab	4 RCTs	Small-moderate	Small
Botulinum toxin injections	1 RCT	Small	Small
Melatonin	3 CTs	Small	Small

<sup>a</sup>morphine, hydromorphone, oxycodone, oxymorphone, and tapentadol.

**Expert opinion:** The overall impression of the efficacy of pharmacological treatments for patients with chronic low back pain is rather sobering. The effects on pain reduction and improvement of function are commonly small to moderate and short lasting when compared to placebo. At the same time, the various types of drugs are not without side-effects. This holds especially true for serious side-effects

# Anticonvulsants in the treatment of low back pain and lumbar radicular pain: a systematic review and meta-analysis

Zurich University  
of Applied Sciences



Oliver Enke MBBS MSc, Heather A. New MBBS MPH, Charles H. New MBBS, Stephanie Mathieson PhD, Andrew J. McLachlan PhD, Jane Latimer PhD, Christopher G. Maher PhD, C.-W. Christine Lin PhD

■ Cite as: *CMAJ* 2018 July 3;190:E786-93. doi: 10.1503/cmaj.171333

Results: Nine trials compared topiramate, gabapentin or pregabalin to placebo in 859 unique participants.

Fourteen of 15 comparisons found anticonvulsants **were not effective to reduce pain or disability in low back pain or lumbar radicular pain**; for example, there **was high-quality evidence of no effect** of gabapentinoids versus placebo on chronic low back pain in the short term (pooled mean difference [MD]  $-0.0$ , 95% confidence interval [CI]  $-0.8$  to  $0.7$ ) or for lumbar radicular pain in the immediate term (pooled MD  $-0.1$ , 95% CI  $-0.7$

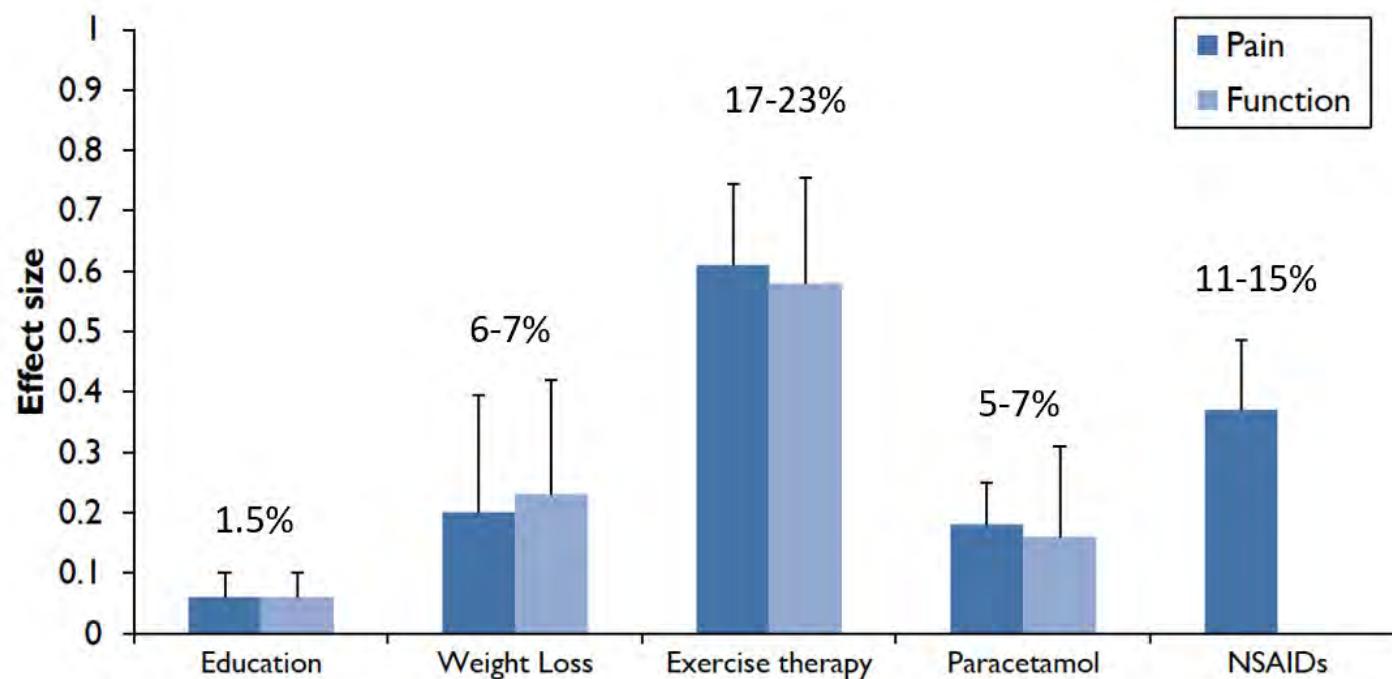
to  $0.5$ ). **The lack of efficacy is accompanied by increased risk of adverse events from use of gabapentinoids, for which the level of evidence is high.**

**Interpretation:** There is moderate- to high-quality evidence that **anticonvulsants are ineffective** for treatment of low back pain or lumbar radicular pain. There is high-quality evidence that gabapentinoids have a higher risk for adverse events.

Lyrica & Co... also  
clear evidence of ...  
no effectiveness....



# Übungstherapie ist der beste nicht operative Schmerzlinderer!



Osteoarthritis  
and Cartilage

OARSI guidelines for the non-surgical management of knee osteoarthritis

T.E. McAlindon <sup>†</sup>, R.R. Bannuru <sup>‡</sup>, M.C. Sullivan <sup>‡</sup>, N.K. Arden <sup>‡</sup>, F. Berenbaum <sup>§||</sup>,  
S.M. Bierma-Zeinstra <sup>¶</sup>, G.A. Hawker <sup>#</sup>, Y. Henrotin <sup>||||</sup>, D.J. Hunter <sup>¶</sup>, H. Kawaguchi <sup>|||</sup>,  
K. Kwoh <sup>¶¶</sup>, S. Lohmander <sup>##</sup>, F. Rannou <sup>||||</sup>, E.M. Roos <sup>||||</sup>, M. Underwood <sup>||||</sup>



# ... und Rückenschmerzen...?

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THE LANCET

Series

March 2018

## Low back pain 1

### What low back pain is and why we need to pay attention

Jan Hartvigsen\*, Mark J Hancock\*, Alice Kongsted, Quinette Louw, Manuela L Ferreira, Stéphane Genevay, Damian Hoy, Jaro Karppinen, Glenn Pransky, Joachim Sieper, Rob J Smeets, Martin Underwood, on behalf of the Lancet Low Back Pain Series Working Group\*

## Low back pain 2

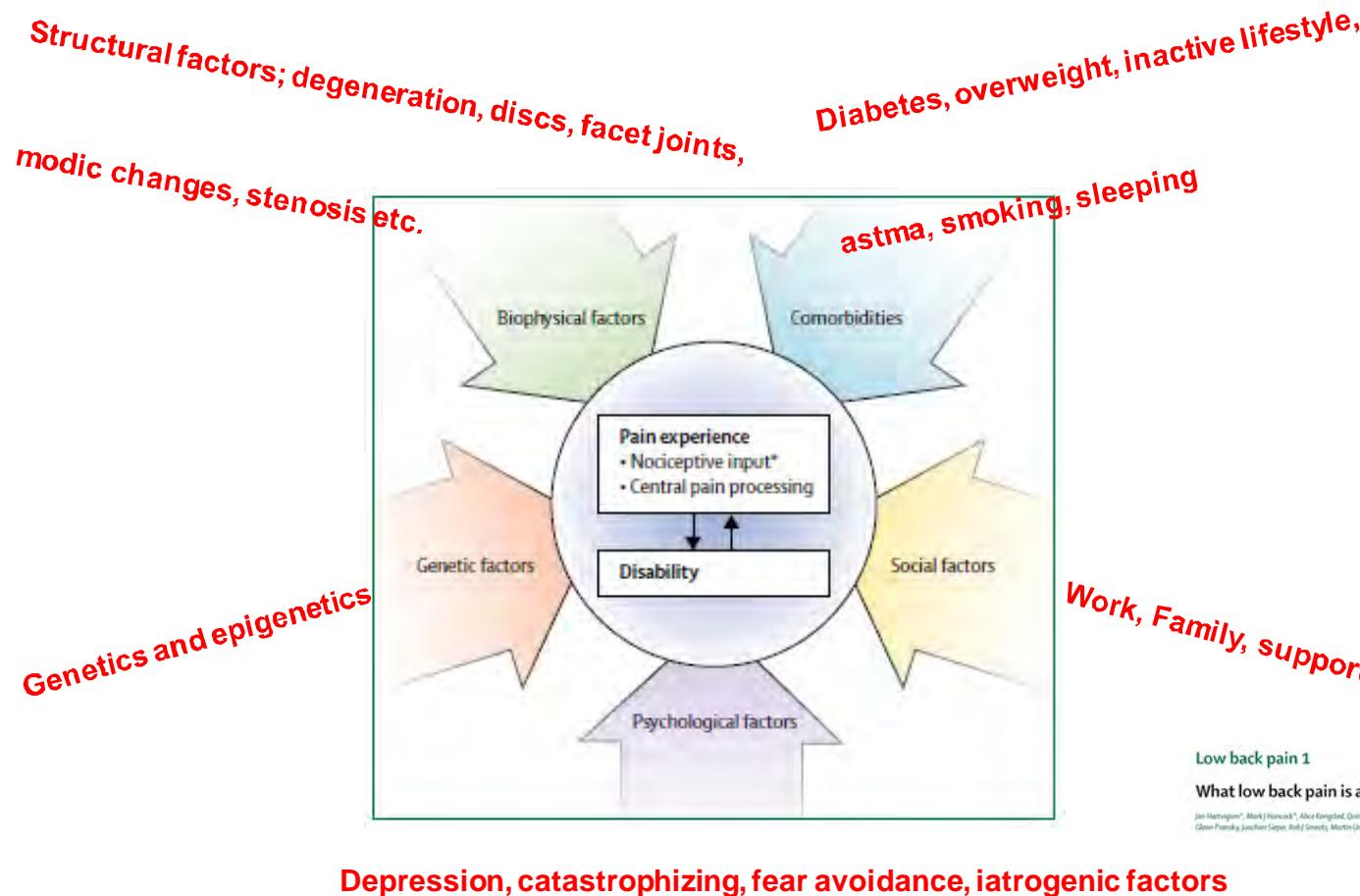
### Prevention and treatment of low back pain: evidence, challenges, and promising directions

Nadine E Foster, Johannes R Anema, Dan Cherkin, Roger Chou, Steven P Cohen, Douglas P Gross, Paulo H Ferreira, Julie M Fritz, Bart W Koes, Wilco Peul, Judith A Turner, Chris G Maher, on behalf of the Lancet Low Back Pain Series Working Group\*

## Low back pain: a call for action

Rachelle Buchbinder, Maurits van Tulder, Birgitta Oberg, Lucila Menezes Costa, Anthony Woolf, Mark Schoene, Peter Croft, on behalf of the Lancet Low Back Pain Series Working Group\*

... In etwa alles was wir machen mit Rückenschmerzen...  
... ist falsch...



#### Low back pain 1

What low back pain is and why we need to pay attention

Jan Hartvigsen\*, Mark J Hancock\*, Alice Kongsted, Quirinette Lorne, Mansukhi I Ferron, Stéphane Gélinas, Dániel Hoy, Jero Korpela, Glenn Pernsky, Joshua Siegel, Rob J Street, Martin Underwood, on behalf of the Lancet Low Back Pain Series Working Group\*

## The Lancet series on low back pain: reflections and clinical implications

Kieran O'Sullivan,<sup>1,2</sup> Peter B O'Sullivan,<sup>3,4</sup> Mary O'Keeffe<sup>5</sup>

Br J Sports Med April 2019 Vol 53 No 7

- Low back pain (LBP) is a major global challenge, and back-related disability is increasing.
- The majority of LBP is not serious and cannot be linked to a specific structure.
- Most red flags have limited diagnostic accuracy.
- Imaging use is often inappropriate for non-specific LBP.
- Non-pharmacological treatments such as advice and activity should be first-line options in the treatment of non-specific LBP.
- Opioids have small effects, but have substantial risks.
- Psychosocial factors are important contributors to LBP and associated disability.
- A systems approach to LBP involving clinical pathway redesign, changes to payment systems and legislation, and integrated health and workplace strategies is needed.
- Advocate the concept of positive health for LBP—the ability to adapt and to self-manage in the face of social, physical and emotional challenges.
- Need to change widespread misconceptions about the causes, prognosis and effectiveness of different treatments for LBP.



## CLINICAL GUIDELINE

# Noninvasive Treatments for Acute, Subacute, and Chronic Low Back Pain: A Clinical Practice Guideline From the American College of Physicians

Amir Qaseem, MD, PhD, MHA; Timothy J. Wilt, MD, MPH; Robert M. McLean, MD; and Mary Ann Force, MD; for the Clinical Guidelines Committee of the American College of Physicians\*

Feb 2017

*Ann Intern Med.* doi:10.7326/M16-2367 Annals.org

**Recommendation 1:** ...most patients with acute or subacute low back pain improve over time regardless of treatment, clinicians and patients should select **nonpharmacologic treatment** ....with superficial heat (moderate-quality evidence), massage, acupuncture, or spinal manipulation (low-quality evidence).

This article was published at Annals.org on 14 February 2017.

**Recommendation 2:** ....chronic low back pain, clinicians and patients should initially select **nonpharmacologic treatment with exercise**, multidisciplinary rehabilitation, acupuncture, mindfulness-based stress reduction (moderate-quality evidence), tai chi, yoga, motor control exercise, progressive relaxation, electromyography biofeedback, low-level laser therapy, operant therapy, cognitive behavioral therapy, or spinal manipulation (low-quality evidence). (Grade: strong recommendation)

**Recommendation 3:** In patients with chronic low back pain **who have had an inadequate response to nonpharmacologic therapy**, clinicians and patients should consider pharmacologic treatment with nonsteroidal anti-inflammatory drugs as first-line therapy, or tramadol or duloxetine as second-line therapy. Clinicians should only consider opioids as an option in patients who have failed the aforementioned treatments and only if the potential benefits outweigh known risks and realistic benefits with patients. (Grade: weak recommendation, moderate-quality evidence)

**..... Low cost treatments should be preferred.....!**

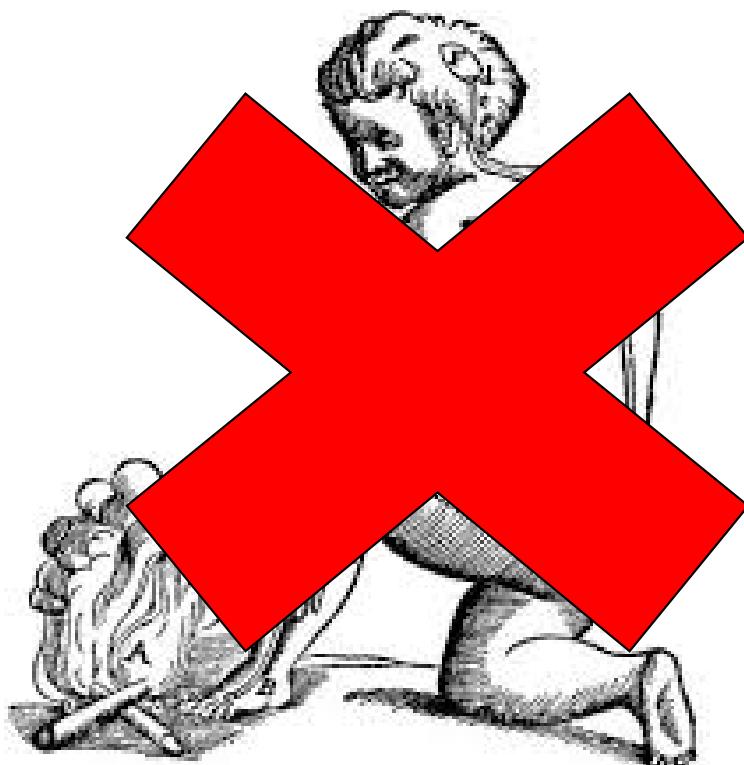


# Warum funktioniert Physiotherapie so gut?

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## Strukturorientiertes Vorgehen...



René Descartes 1596 -  
1650

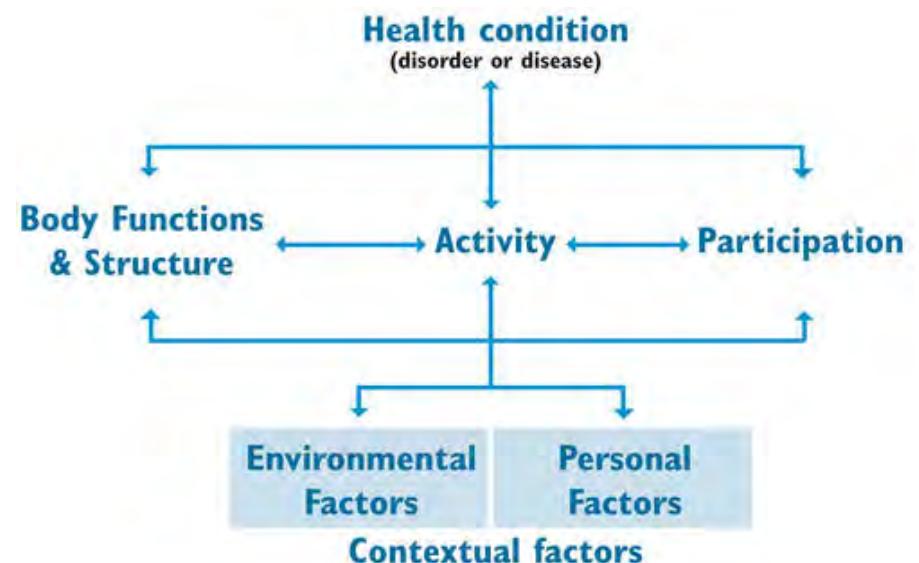
# Nicht wichtig sind...

Strukturen...und sog. Objektive Befunde

**Sondern**

Aktivität und...

Partizipation



## 11 Best Practice Recommendations for Care in Musculoskeletal Pain

Infographic summary of a systematic review undertaken to identify common recommendations for high-quality care for the most common musculoskeletal pain sites encountered by clinicians in emergency and primary care



Cervical and  
thoracic pain



Low back pain



Hip and knee  
(including OAI)



Shoulder pain

Lin I, Rankin A, Wiles L, et al. Br J Sports Med

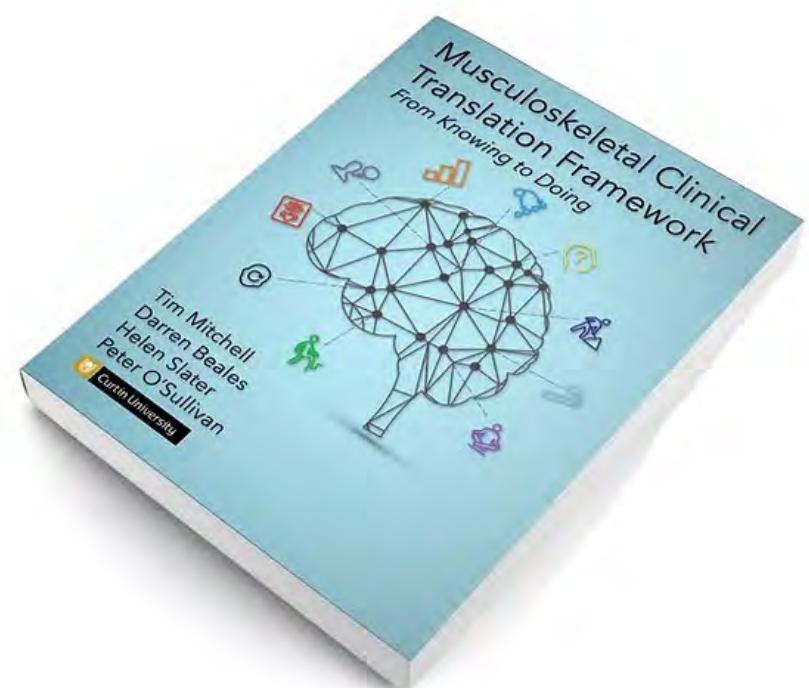
2019;53:1250.



Musculoskeletal Clinical Translation Framework				
Individual's Perspective	Individual's Problem/s	Functional Capacity	Goals/Expectations	
Diagnosis	Specific Diagnosis	Non-Specific Diagnosis	Red Flags	
Stage of Disorder	Acute	Sub-acute	Recurrent	Chronic/Persistent
Pain Features	Types Characteristics Sensitisation	Nociceptive Mechanical Low	Neuropathic Non-Mechanical High	Nociceptive Mixed
Psychosocial Considerations (Yellow Flags)	Cognitive Factors Affective Factors Social Factors	Low	High	Low
Work Considerations (Blue & Black Flags)	Workplace Factors	Low	High	
Lifestyle Considerations	Lifestyle Factors	Low	High	
Whole-Person Considerations	General Health & Co-Morbidities	Low	High	
Impairment Domains	Helpful (Protective) Impairment of Movement	Unhelpful (Provocative) Impairment of Control	Pain Behaviours	De-conditioning
Clinical Decision Making	Diagnosis	Stage	Important Contributing Factors	

Developed by Postgraduate Musculoskeletal Physiotherapy Teaching Team, Curtin University.  
Tim Mitchell, Darren Beales, Helen Slater & Peter O'Sullivan

Zurich University  
of Applied Sciences



# Welche Resultate sind wichtig?

PROMs

Patient Related Outcome Measures

Fragebogen

Roland Morris

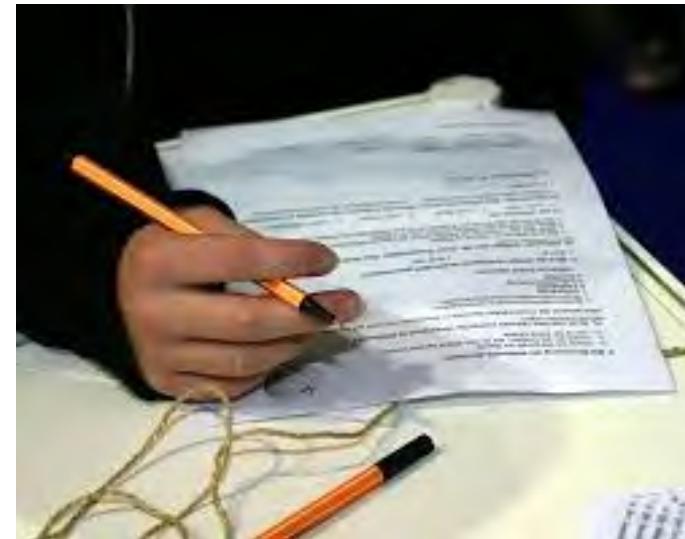
Oswestry

Neck disability index

DASH

Hoos, Koos, Woamc

Etc.,



# Örebro short version

1. Wo haben Sie ihre Schmerzen? (Mehrfachnennung möglich)

<input type="checkbox"/> Nacken	<input type="checkbox"/> Schultern	<input type="checkbox"/> oberer Rücken	<input type="checkbox"/> unterer Rücken	<input type="checkbox"/> Beine	<input type="checkbox"/> anderes Körperteil
---------------------------------	------------------------------------	--	---	--------------------------------	---

2. Wie stark waren Ihre Rückenschmerzen in der letzten Woche?

<input type="checkbox"/> 0 - <input type="checkbox"/> 1 - <input type="checkbox"/> 2 - <input type="checkbox"/> 3 - <input type="checkbox"/> 4 - <input type="checkbox"/> 5 - <input type="checkbox"/> 6 - <input type="checkbox"/> 7 - <input type="checkbox"/> 8 - <input type="checkbox"/> 9 - <input type="checkbox"/> 10			
	keine Schmerzen		stärkste vorstellbare Schmerzen

3. Ich kann eine Stunde lang leichte Arbeit verrichten.

<input type="checkbox"/> 0 - <input type="checkbox"/> 1 - <input type="checkbox"/> 2 - <input type="checkbox"/> 3 - <input type="checkbox"/> 4 - <input type="checkbox"/> 5 - <input type="checkbox"/> 6 - <input type="checkbox"/> 7 - <input type="checkbox"/> 8 - <input type="checkbox"/> 9 - <input type="checkbox"/> 10		
	ohne Beeinträchtigung möglich	wegen Schmerzen überhaupt nicht möglich

4. Ich kann eine Stunde lang spazieren gehen.

<input type="checkbox"/> 0 - <input type="checkbox"/> 1 - <input type="checkbox"/> 2 - <input type="checkbox"/> 3 - <input type="checkbox"/> 4 - <input type="checkbox"/> 5 - <input type="checkbox"/> 6 - <input type="checkbox"/> 7 - <input type="checkbox"/> 8 - <input type="checkbox"/> 9 - <input type="checkbox"/> 10		
	ohne Beeinträchtigung möglich	wegen Schmerzen überhaupt nicht möglich

5. Ich kann meine übliche Hausarbeit erledigen.

<input type="checkbox"/> 0 - <input type="checkbox"/> 1 - <input type="checkbox"/> 2 - <input type="checkbox"/> 3 - <input type="checkbox"/> 4 - <input type="checkbox"/> 5 - <input type="checkbox"/> 6 - <input type="checkbox"/> 7 - <input type="checkbox"/> 8 - <input type="checkbox"/> 9 - <input type="checkbox"/> 10		
	ohne Beeinträchtigung möglich	wegen Schmerzen überhaupt nicht möglich

6. Ich kann die Einkäufe erledigen.

<input type="checkbox"/> 0 - <input type="checkbox"/> 1 - <input type="checkbox"/> 2 - <input type="checkbox"/> 3 - <input type="checkbox"/> 4 - <input type="checkbox"/> 5 - <input type="checkbox"/> 6 - <input type="checkbox"/> 7 - <input type="checkbox"/> 8 - <input type="checkbox"/> 9 - <input type="checkbox"/> 10		
	ohne Beeinträchtigung möglich	wegen Schmerzen überhaupt nicht möglich

7. Waren Sie in der letzten Woche traurig oder niedergeschlagen?

<input type="checkbox"/> 0 - <input type="checkbox"/> 1 - <input type="checkbox"/> 2 - <input type="checkbox"/> 3 - <input type="checkbox"/> 4 - <input type="checkbox"/> 5 - <input type="checkbox"/> 6 - <input type="checkbox"/> 7 - <input type="checkbox"/> 8 - <input type="checkbox"/> 9 - <input type="checkbox"/> 10		
	überhaupt nicht	in extremer Weise

8. Wie angespannt oder besorgt haben Sie sich in der letzten Woche gefühlt?

<input type="checkbox"/> 0 - <input type="checkbox"/> 1 - <input type="checkbox"/> 2 - <input type="checkbox"/> 3 - <input type="checkbox"/> 4 - <input type="checkbox"/> 5 - <input type="checkbox"/> 6 - <input type="checkbox"/> 7 - <input type="checkbox"/> 8 - <input type="checkbox"/> 9 - <input type="checkbox"/> 10		
	vollkommen ruhig und entspannt	vollkommen angespannt und besorgt

9. Körperliche Aktivität verstärkt meine Rückenschmerzen.

<input type="checkbox"/> 0 - <input type="checkbox"/> 1 - <input type="checkbox"/> 2 - <input type="checkbox"/> 3 - <input type="checkbox"/> 4 - <input type="checkbox"/> 5 - <input type="checkbox"/> 6 - <input type="checkbox"/> 7 - <input type="checkbox"/> 8 - <input type="checkbox"/> 9 - <input type="checkbox"/> 10		
	stimmt gar nicht	stimmt vollkommen

10. Zunehmende Rückenschmerzen zeigen mir, dass ich das, was ich gerade tue, unterbrechen sollte, bis der Schmerz nachlässt.

<input type="checkbox"/> 0 - <input type="checkbox"/> 1 - <input type="checkbox"/> 2 - <input type="checkbox"/> 3 - <input type="checkbox"/> 4 - <input type="checkbox"/> 5 - <input type="checkbox"/> 6 - <input type="checkbox"/> 7 - <input type="checkbox"/> 8 - <input type="checkbox"/> 9 - <input type="checkbox"/> 10		
	stimmt gar nicht	stimmt vollkommen



The NEW ENGLAND JOURNAL of MEDICINE

Perspective  
DECEMBER 23, 2010

# Was wird empfohlen? - In value based healthcare

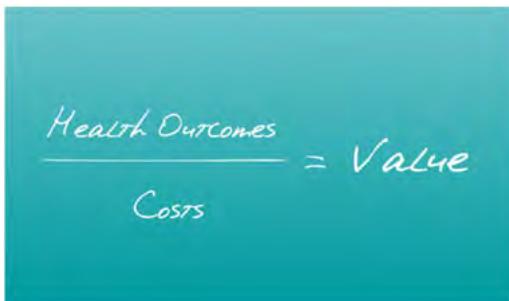
Was sind die Resultate und was sind die Kosten?

Welche Resultate sind wichtig?

- PROMs (patient rated outcome measures)

Was sind die Risiken?

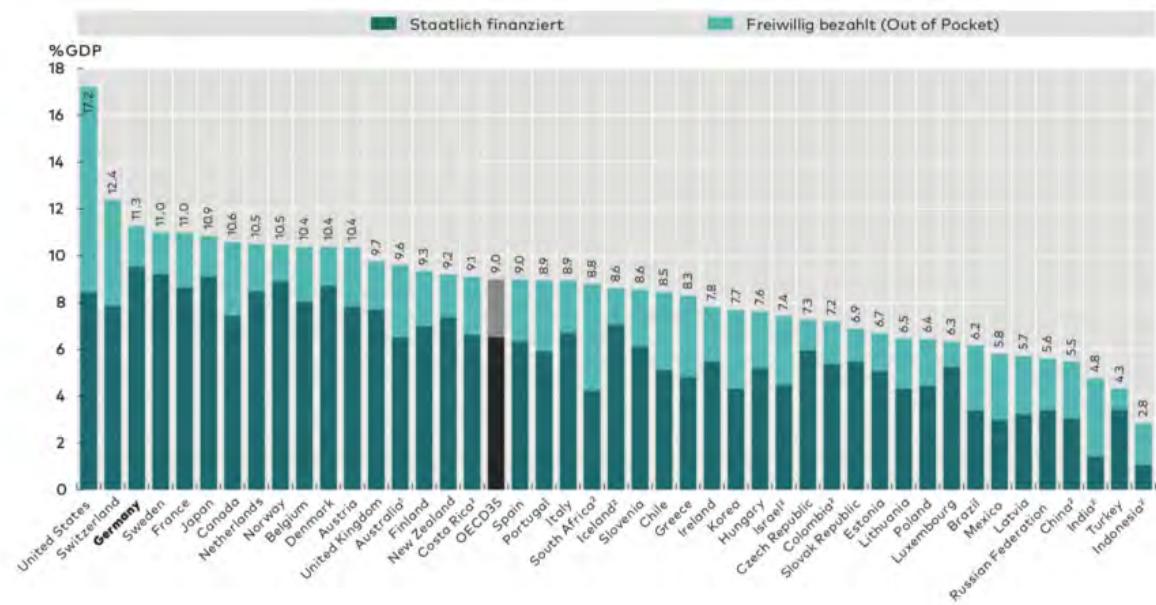
Was sind die Langzeiteffekte?



Zurich Universities of Applied Sciences and Arts

What Is Value in Health Care?  
Michael E. Porter, Ph.D.

Ausgaben Gesundheitswesen als Prozentsatz des BIP<sup>1</sup>



# Was habe ich gesagt?

- Value based health care – was ist eigentlich wichtig?
- Es wird zu viel operiert
- Struktur basiertes Diagnostizieren ist überwertet, teuer, und manchmal sogar schädlich
- In den häufigsten msk Diagnosen ist physiotherapeutisches Vorgehen gleich effektiv wie das orthopädisches Operieren, aber kostet weniger und hat viel tiefere Risiken und Nebenwirkungen
- Ein ganzheitlicheres Vorgehen beim Diagnostizieren / Befunden ist nötig und muss in Zukunft viel höheren Stellenwert haben





Kiitos!

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