RÆK HÅNDEN OP HVIS DU ER ENIG

" Jeg kan mærke forskel på alvorlige og mindre alvorlige smerter "

RÆK HÅNDEN OP HVIS DU ER ENIG

" Når en smerte forsvinder er det fordi vævet er blevet rask "

RÆK HÅNDEN OP HVIS DU ER ENIG

" Smerten kan nogle gange være psykisk, ikke fysisk "

DEN TYPISKE OPFATTELSE AF SMERTE

DEN TYPISKE MISFORSTÅELSE

> When chronic pain is considered a symptom, it often leads to the belief that chronic pain would be eliminated if the original disease were treated appropriately. Unfortunately, this is generally not the case. Just **treating the inciting disease or injury does not resolve chronic pain disorders** in most cases.

Yan Lu et al., *Pain Medicine* April 2019

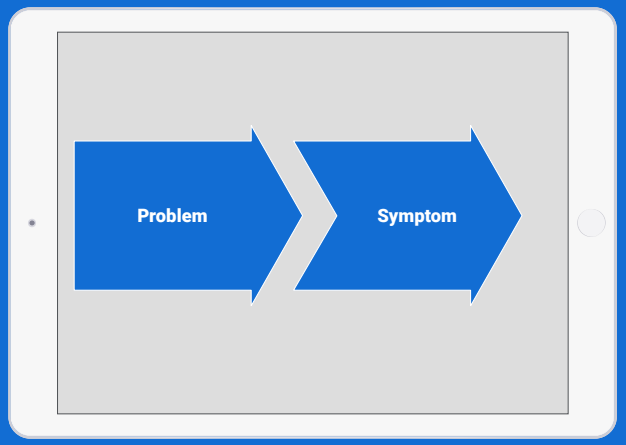
Udfordringer i behandlingen af hjernerystelse

1. Tendens til ensidigt **fokus på at få stillet diagnosen** "hjernerystelse" fremfor at undersøge (og registrere) de effekter slaget har haft på kroppens systemer (fx kognition, søvn, balance, syn og hukommelse)
2. Anatomiske og fysiologiske **fund kan ikke forklare symptomerne**
3. Symptombilledet er **ikke ens** hos patienterne; behovet for individualiseret behandling er stort
4. Det er normalt at patienter med hjernerystelse 'kommer sig' i **forskelligt tempo**
   - ***OBS:*** *Anbefalingerne om 'normaltider' er baseret på et begrænset datagrundlag*
5. Tendens til at underkende eller overse **kontekstuelle faktorers betydning** (både +ve og -ve)
6. Tendens til at **nedprioritere self-management** strategier som fx patient-uddannelse

Alsalaheen B et al. *A Treatment-Based Profiling Model for Physical Therapy Management of Patients Following a Concussive Event* | JOSPT ahead-of-print October 2019

UKOMPLICEREDE PROBLEMER

Dosis/stimulus-respons forhold mellem problem og symptom

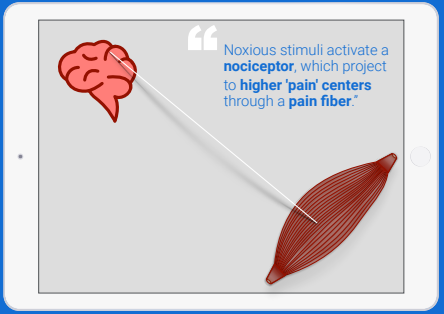


SPECIFICITETS TEORI

"The fundamental tenet of the Specificity Theory is that each modality has **a specific receptor and associated sensory fiber** (primary afferent) that is **sensitive to one specific stimulus**" (Dubner et al. 1978).

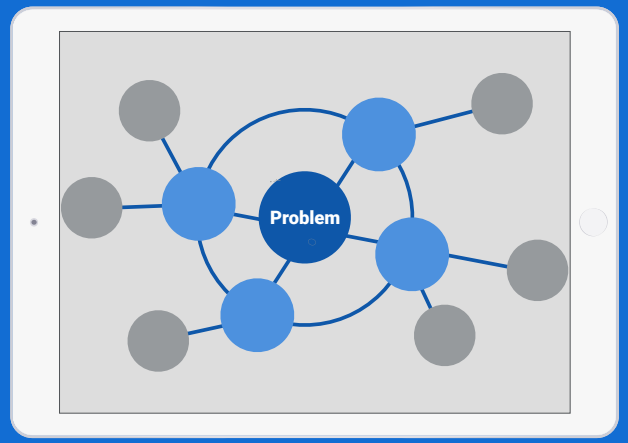
End-organ modeller (patofysiologi) forklarer fx smerte med årsag i:

- muskler, led, ledbånd (fx ledsmerter)
- centre i hjernen (fx pain matrix)
- "smertebeskeder"



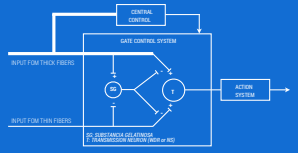
KOMPLICEREDE PROBLEMER

Multifaktorielt problem; kun begrænset og evt kortvarig effekt af at påvirke elementerne enkeltvis.

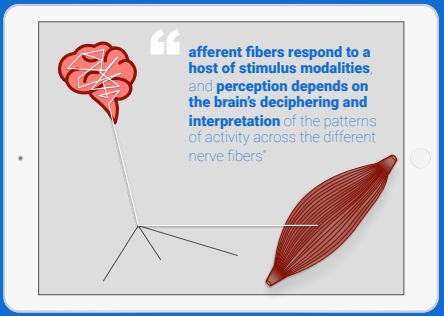


MØNSTER TEORI

"**specificity theory has failed** to generate any explanation for clinical pains. Worse yet… **it has encouraged ineffective, often counterproductive, surgical attempts** to destroy the cells or their axons." (Wall PD, 1996)



Adapted from Wall & Melzack (1965)



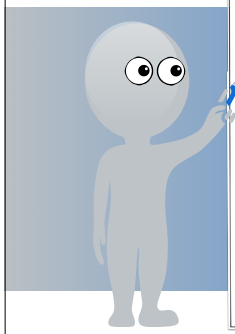
Basbaum A. | www.painresearchforum.org | *Specificity Versus Patterning Theory: Continuing the Debate*

"The mystery is **how a theory** that is vulnerable to obvious counterexamples can **survive so long**. I can explain it only by a weakness of the scholarly mind that I have often observed in myself. I call it **theory-induced blindness**: once you have accepted a theory and used it as a tool in your thinking, it is **extraordinarily difficult to notice its flaws**. If you come upon an observation that does not seem to fit the model, you assume that there must be a perfectly good explanation that you are somehow missing. **You give the theory the benefit of the doubt**, trusting the community of experts who have accepted it.

Daniel Kahneman | Thinking, Fast and Slow

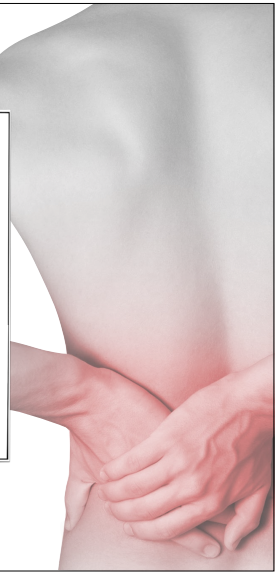
ER KRONISKE SMERTER BARE ET FØLELSESMÆSSIGT ELLER KOGNITIVT FEJLSKUD?

EN OVERLEVELSESMEKANISME?



SMERTE

- Kræver din **opmærksomhed**
- Føles **modbydelig** eller ubehagelig
- Opleves **i kroppen** (ikke udenfor eller i en andens krop)
- **Motiverer** dig så du
  - *lærer af situationen (finde mønstre og forudsige risici)*
  - *prioriterer din adfærd samt dine tanker og bevægelser*
- Påvirker dit **humør** og dine **sociale** kompetencer/interesser
- Opleves som én ting *selvom den kan have mange årsager*



SMERTE SKAL ALTID FORSTÅS I KONTEKST

- NOCICEPTION
- PLACEBO / NOCEBO EFFEKTER
- VIDEN, VENNER OG VERDENSBILLEDE
- OPMÆRKSOMHED, FOKUS
- ERFARINGER, KULTUR OG VANER
- GENETIK, IMMUN-STATUS OG PATOLOGIER
- ...OG MEGET ANDET?

VORES BEDSTE BUD...

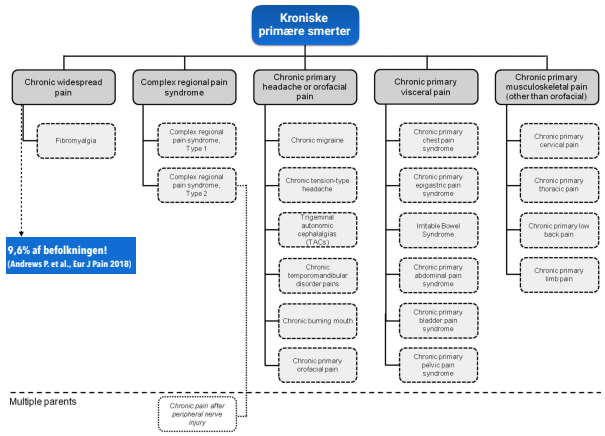
Adapteret fra Moseley GL (2007)

HVAD ER <u>KRONISKE</u> SMERTER

Kroniske **primære** smerter er defineret som smerter i én eller flere regioner, der:

- *er vedvarende eller gentagne i mere end 3 måneder OG*
- *er forbundet med signifikant emotionel distress eller funktionelle begrænsninger, der påvirker ADL eller sociale roller, samt*
- *ikke kan forklares med en anden kronisk tilstand*

Treede, Rolf-Detlef et al. PAIN: January 2019 - Volume 160 - Issue 1 - p 19-27



M. Nicholas et al. PAIN.160 (2019) 28-37

KRONISKE SEKUNDÆRE SMERTER (ICD-11)

I maj 2019 blev WHO's ICD-11 (diagnosekoder) vedtaget, og følgende diagnoser vil danne ramme for nye diagnoser (2020)

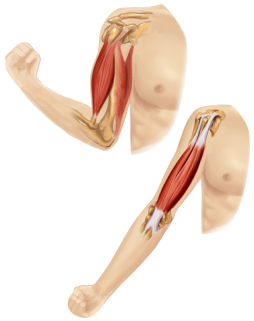
Kroniske SEKUNDÆRE smerter

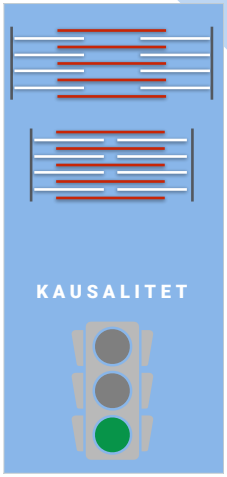
1. Kronisk **cancer**-relateret smerte
   Smerte efter cancer eller behandling heraf
2. Kroniske smerter efter **operation** eller **traumer**
   Nye eller øgede smerter efter vævstraumer, der varer over tre måneder
3. Kronisk **neuropatisk** smerte
   Smerte efter skade eller sygdom i det somatosensoriske nervesystem. Kan være perifær eller central.
4. Kronisk sekundær **hovedpine** eller **orofacial** smerte
   Kroniske hovedpiner samt ansigts- og tandsmerter
5. Kronisk sekundær **visceral** smerte
   Smerte sekundært til sygdomme i indre organer i ansigt, hals, thorax, abdomen eller pelvis
6. Kronisk sekundær **muskuloskeletal** smerte
   Smerte sekundært til sygdomme i knogler, sener, led mv. herunder inflammatoriske sygdomme

OMFANGET AF UDFORDRINGEN

1. Fysioterapeuter (m.fl.) modtager **ingen eller begrænset uddannelse** om kroniske smerter
2. Der er kulturel accept af **falske dikotomier** som forklaring på smerte (fx psykisk/fysisk eller rigtig/forkert bevægelse)
3. **Simple forklaringsmodeller** er udbredte og accepteret i såvel klinisk som akademisk jargon (fx smertecentre i hjernen)
4. Klinisk ræsonnering følger ikke videnskabelig skepticisme (fx **theory-induced blindness**)
5. **Eminens-baseret praksis** (forskere > klinikere > patienter) fremfor patient-centreret praksis

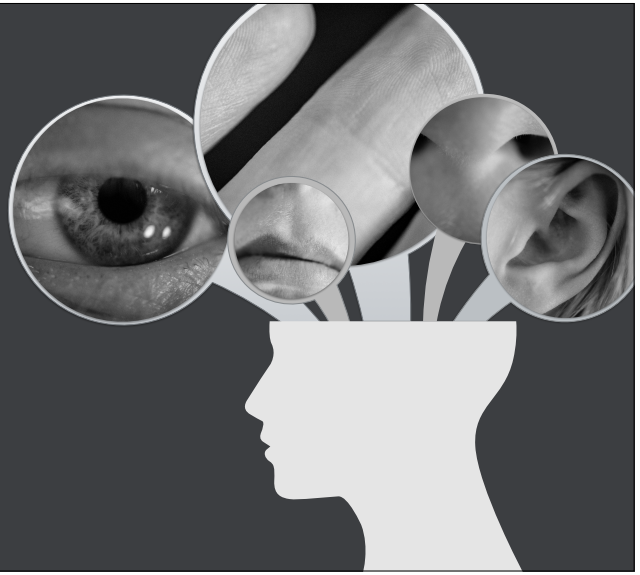
FINDES DER EN ÅRSAG?





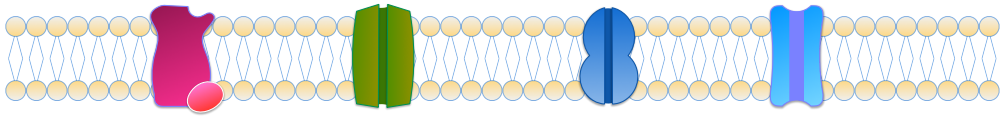
HVORDAN FORKLARER VI BEDST SMERTE I DAG?

DINE SANSER FORSYNER HJERNEN MED VIDEN OM VERDEN OMKRING DIG

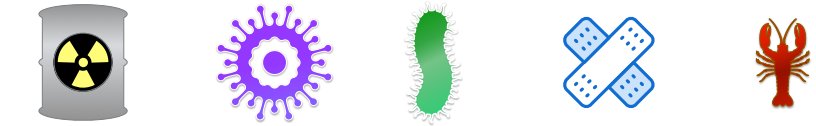


NOCICEPTIVE STIMULI KAN VÆRE:

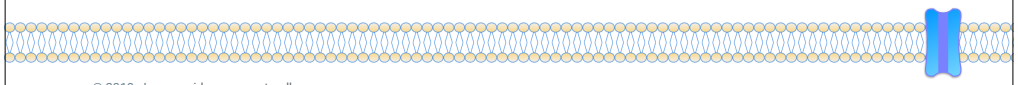
KEMISKE VARME KULDE MEKANISKE



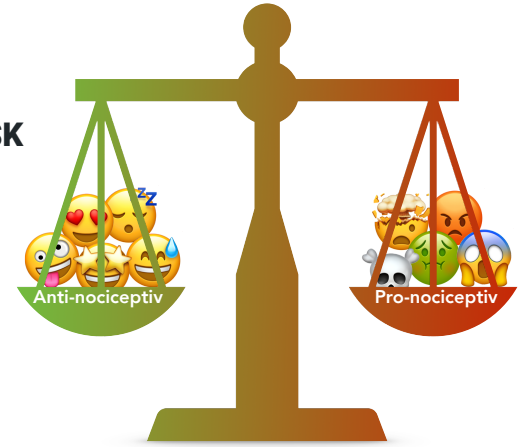
INFLAMMATION ER KROPPENS 'FIRST LINE OF DEFENCE' MED VÆVSSKADE OG PATOGENER



STRÅLER OG KEMISKE STOFFER | VIRUS (FX INFLUENZA) | BAKTERIER | VÆVSSKADER | SYGDOMME (FX CANCER)



DESCENDERENDE MODULATION KAN VÆRE INHIBITORISK ELLER FACILITATORISK

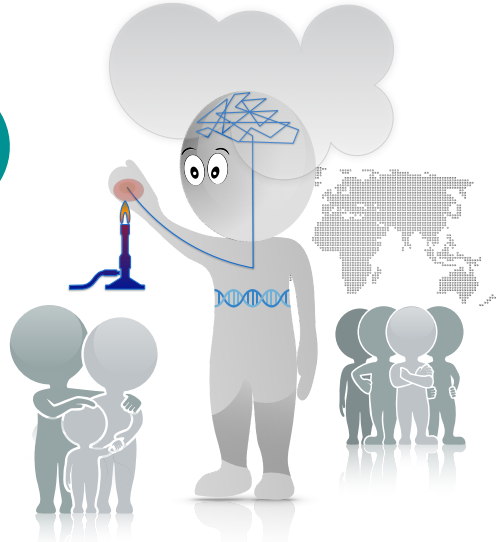


MEN KAN NOCICEPTION FORKLARE ALLE SMERTER?

Nociception *kan* lede til smerte

... men smerte er påvirkeligt af <u>mange faktorer</u> herunder:

- *hvad vi tror på og har lært at tro på*
- *hvad vores familie og venner tror på*
- *vores kultur og samfundsnormer*
- *hvad vi forventer, der vil ske*
- *hvilke erfaringer vi har med fra tidligere*
- *hvordan vores 'biologiske balance' er*
- *hvilke genetiske koder vi har med os*
- *og mange andre ting vi ikke forstår endnu...*



BEHANDLING AF SMERTER

NKR Generaliserede Smerter i bevægeapparatet

	2018	2015
Udredning / Dx	Konsensus (+)	Konsensus (+)
Superviseret træning v/HCP	Svag anbefaling (+)	Svag anbefaling (+)
Kognitiv adfærds terapi	**Stærk anbefaling (+)**	Svag anbefaling (+)
Daglige aktiviteter	Konsensus (+)	Konsensus (+)
Patient-uddannelse	**Stærk anbefaling (+)**	Stærk anbefaling (+)
Arbejdsfastholdelse	Konsensus (+)	Konsensus (+)
Multidisciplinær indsats	Svag anbefaling (+)	Svag anbefaling (+)
Dual-action opioids	Svag anbefaling (÷)	Svag anbefaling (÷)
Andre opioider	Konsensus (÷)	Konsensus (÷)
Tricyclisk antidepressiva	Svag anbefaling (+)	Svag anbefaling (+)
SNRI	Svag anbefaling (+)	Svag anbefaling (+)
SSRI	Svag anbefaling (÷)	Svag anbefaling (÷)
Antikonvulsiva	Svag anbefaling (+)	Svag anbefaling (÷)

NKR Generaliserede smerter (SST 2018)

Anbefalinger akut vs kronisk

Baseret på behandling af primære kroniske smerter i ryggen

Foster NE, et al. Lancet. March 2018

	Acute low back pain (<6 weeks)	Persistent low back pain (>12 weeks)
Pharmacological therapy		
Paracetamol	Not recommended	Not recommended
Non-steroidal anti-inflammatory drugs	Second-line or adjunctive treatment option	Second-line or adjunctive treatment option
Skeletal muscle relaxants	Limited use in selected patients	Insufficient evidence
Selective norepinephrine reuptake inhibitors	Insufficient evidence	Second-line or adjunctive treatment option
Antiseizure medications	Insufficient evidence	Role uncertain
Opioids	Limited use in selected patients, use with caution	Limited use in selected patients, use with caution
Systemic glucocorticoids	Not recommended	Not recommended
Interventional therapies		
Epidural glucocorticoid injection (for herniated disc with radiculopathy)	Not recommended	Limited use in selected patients
Surgery		
Discectomy (for herniated disc with radiculopathy)	Insufficient evidence	Second-line or adjunctive treatment option
Laminectomy (for symptomatic spinal stenosis)	Insufficient evidence	Second-line or adjunctive treatment option
Spinal fusion (for non-radicular low back pain with degenerative disc findings)	Insufficient evidence	Role uncertain

Subacute low back pain is a transition period between acute and chronic low back pain; evidence on optimal therapies for subacute low back pain is scarce but a reasonable approach is to shift towards therapies recommended for chronic low back pain.

Table 2: **Overview of interventions endorsed for non-specific low back pain in evidence-based clinical practice guidelines (Danish,[4] US,[7] and UK[8] guidelines)**

inhibitors		treatment option
Antiseizure medications	Insufficient evidence	Role uncertain
Opioids	Limited use in selected patients,	Limited use in selected patients, use

DEN BREDE PENSEL

Behandling af kroniske smerter i overskrifter

- Psykoedukation
- Fysisk aktivitet (ikke nødvendigvis træning)
- Kognitiv adfærdsterapi
- Fastholdelse af hverdagsfunktioner og sociale relationer

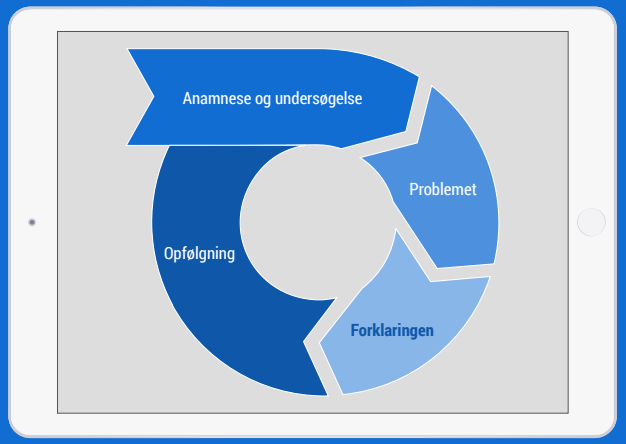
PSYKOEDUKATION

FORKLARINGEN PÅ ‘PROBLEMET’ ER EN ESSENTIEL DEL AF BEHANDLINGEN

EN FÆLLES LØSNING

Problem
- Noget, der kan lykkes
- Som motiverer patienten

Forklaring
- Den teoretiske sammenhæng, der binder patientens oplevede symptomer, din viden og den følgende behandling sammen
- Skal gøre patienten motiveret for behandlingen (fordi denne bør løse problemet)



FORKLARINGEN PÅ PROBLEMET ER EN TERAPEUTISK INTERVENTION

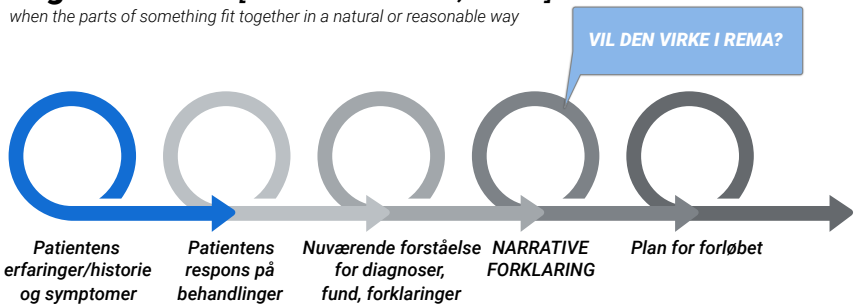
der bør gøre patienten til **hovedpersonen** *i forløbet fordi den bør give patienten*

- ✓ *en* ***socialt acceptabel forklaring på deres situation***
- ✓ *en* ***rationel sammenhæng*** *mellem problem og løsning (= forløbet)*
- ✓ ***kontrol*** *over,* ***indsigt*** *i og* ***forudsigelighed*** *af smerten*
- ✓ ***håb****!*

SKAB SAMMENHÆNG

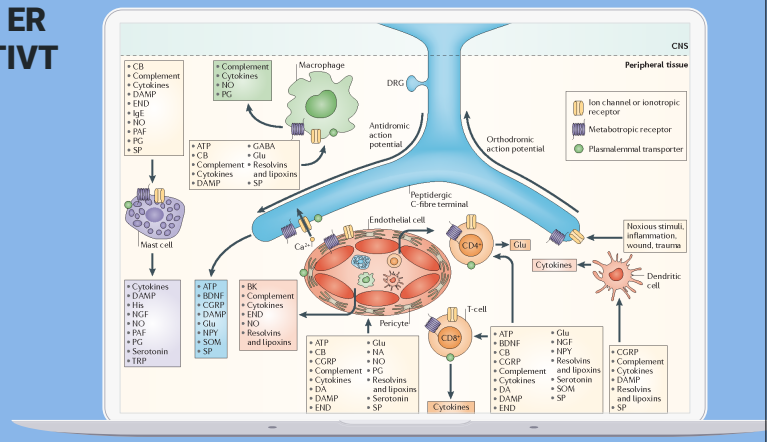
eng Coherence *[koh-**heer**-uhns, -**her**-]*

when the parts of something fit together in a natural or reasonable way



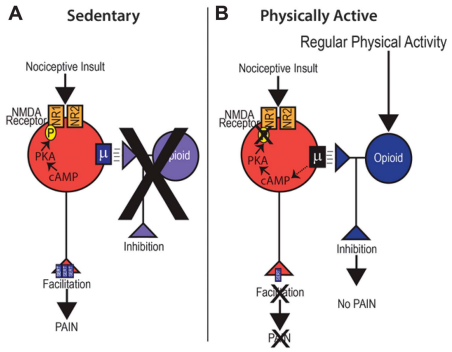
FYSISK AKTIVITET

TRÆNING ER NOCICEPTIVT



...MEN DET ER INAKTIVITET OGSÅ

September 2018 • Volume 159 • Number 9 • Supplement 1 www.painjournalonline.com S93



Sluka KA. Frey-Law L. and Bement MH | Exercise-induced pain and analgesia? | PAIN 2018(159):9

VORES OPFATTELSE AF SMERTE KAN ÆNDRES

»SMERTEN ER UBEHAGELIG - MEN UFARLIG. BEVÆGELSE ER NØDVENDIG«

(overvej konsekvenserne af ikke-at-bevæge sig...)

HVORDAN KAN VI FACILITERE FYSISK AKTIVITET?

Polaski AM et al. (2019) Exercise-induced hypoalgesia: A meta-analysis of exercise dosing for the treatment of chronic pain. PLoS ONE 14(1)

Vanti C. et al. (2019) The effectiveness of walking versus exercise on pain and function in chronic low back pain: a systematic review and meta-analysis of randomized trials, Disability and Rehabilitation, 41:6

JUST DO IT

1 En gåtur har optimal balance mellem effekt og bivirkninger hos patienter med CLBP

KEEP DOING IT

2 Frekvensen og varigheden af træning kan være væsentlige faktorer

FOR YOU

3 Træning er *for din sundhed, ikke mod smerter*

BARRIERS AND FACILITATORS

Table 6
Summary of barriers and facilitators of Brief Intervention delivery and uptake identified by Campbell et al. (2012).

Facilitators of practitioner delivery of brief interventions	Facilitators of patient uptake of brief interventions	Barriers to practitioner delivery of brief interventions
Practitioner-related factors: • Positive views about the health benefits of physical activity, and effectiveness of brief advice. • Perception that physical activity promotion is part of their role. • Knowledge of physical activity and confidence in delivering brief interventions and promoting physical activity. • Practitioners who are more physically active. • Perception that a patient has certain characteristics. • Perceived likelihood of patient uptake of advice. *Intervention-related factors:* • Structured protocols with clear and simple messages and process. • Insufficient evidence for use of technology to increase BI delivery. *System/structural factors:* • Availability of support and specialist staff, knowledge of downstream structures, and presence of structural support.	*Intervention-related factors:* • Advice is preventative (rather than treatment-based). *Practitioner characteristics:* • Appearance/dress, ease of availability, perceived intelligence compared to other general practitioners. *Patient characteristics:* • Higher education and income levels. • Already physically active. • Better recall and understanding of advice. • Awareness of physical activity recommendations. • Older patients who feel they are being listened to. • Offer of incentives (e.g. financial or cash equivalents) to act on advice. • More receptive of treatment-based advice when ready to change or have a relevant condition.	*Intervention-related factors:* • Perceived lack of provision of high quality print materials to reinforce verbal messages. • Perceived lack of provision of financial incentives. • Perceived lack of provision of other support resources (e.g., knowledge of downstream structures and structural support). *System/structural factors:* • Lack of time.

Lamming L. et al. (2017) *What do we know about brief interventions for physical activity that could be delivered in primary care consultations?*

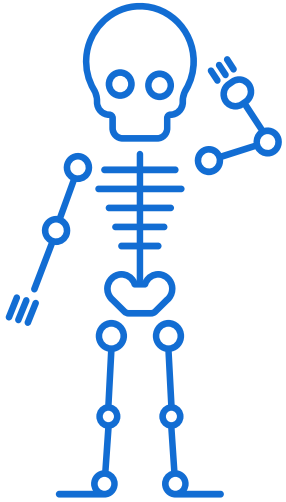
BARRIERER INDEN I OS SELV?

<u>En biomedicinsk tilgang til smerte</u>, fx.

- at **øget smerte må skyldes, at der er 'noget galt'** og
- når smerten ikke forsvinder selvom man træner, så må der være noget **galt med bevægelserne/øvelserne**

<u>Misforståelser</u> om kroniske og non-specifikke smerter, fx.

- at man tror, at
  - patienter vil opnå **sekundære gevinster**
  - der findes **psykologiske årsager** til smerten
  - der findes en (type) behandling, som kan **fjerne smerten**



Musculoskeletal pain and exercise—challenging existing paradigms and introducing new

Benjamin E Smith,[1,2] Paul Hendrick,[3] Marcus Bateman,[1] Sinead Holden,[4,5] Chris Littlewood,[6] Toby O Smith,[7] Pip Logan[2]

Table 1 How to reconceptualise pain-related fear through exercise—practical solutions

Treatment goal	Example
Understand what the patient understands	Why do you think you have pain?
Challenge unhelpful beliefs	Is it safe for you to exercise? Why? Discuss with the patient. Prescribe exercises or movements that were previously avoided/or painful. New inhibitory associations may be made with painful exercises.
Enhance self-efficacy	Are you confident of completing this exercise? What do you think will happen? Discuss with the patient. The hierarchy construction of painful exercises, from easier to more difficult may improve self-efficacy.
Provide safety-cues	Your knee is painful because it has become deconditioned and not used to movement. Pain is not a sign of tissue damage. We need to exercise your knee, so it will become strong and conditioned to enable you to do what you need to do.
Provide advice on suitable levels of pain	If you're coping with the level of pain, then continue with the exercise. If the pain is more than you find acceptable or flares up longer than 24 hours after the exercise, then decrease the amount of exercise until you're coping with it again.
Provide advice on exercise modification	It is important to adjust the exercises dependent on your symptoms. This may mean increasing the number of repetitions that you do or the amount of resistance that you use as it becomes easier; or decreasing if it gets too painful. Try not to avoid doing the exercises altogether as complete rest is unlikely to solve the problem. Instead reduce the exercises to a level that is acceptable.

FYSISK AKTIVITET OG KOGNITION

TABLE 1. Committee-assigned grades for the effects of PA on various ages and clinical outcomes.

Population or Measure	Outcome	Grade
Children <6 yr	Insufficient evidence to determine the effects of moderate- to vigorous-intensity PA on cognition	Not assignable
Children 6–13 yr	Both acute and chronic moderate- to vigorous-intensity PA interventions improve brain structure and function, as well as cognition, and academic outcomes	Moderate
Children 14–18 yr	Limited evidence to determine the effects of moderate- to vigorous-intensity PA on cognition	Limited
Young and middle-age adults 18–50 yr	Insufficient evidence to determine the effects of moderate- to vigorous-intensity PA on cognition	Not assignable
Older adults >50 yr	Both acute and long-term moderate- to vigorous-intensity PA interventions improve brain structure and function, as well as cognition	Moderate
Adults with dementia	Evidence suggests that PA may improve cognitive function	Moderate
Risk of dementia and cognitive impairment	Greater amounts of PA reduce the risk for cognitive impairment	Strong
Other clinical disorders (i.e., ADHD, schizophrenia, MS, Parkinson's, stroke)	Evidence that moderate- to vigorous-intensity PA has beneficial effects on cognition in individuals with diseases or disorders that impair cognition	Moderate
Biomarkers of brain health	Moderate- to vigorous-intensity PA positively influences biomarkers, including MRI-based measures of function, brain volume, and white matter	Moderate
Acute bouts	Short, acute bouts of moderate- to vigorous-intensity PA transiently improves cognition during the postrecovery period	Strong
Overall	There is a consistent association between chronic MVPA and improved cognition, including performance on academic achievement tests, neuropsychological tests, and risk of dementia. Effects are demonstrated across a gradient of normal to impaired cognitive health status	Moderate

MOVING (ON) WITH PAIN 2019

DANISH SOCIETY FOR PAIN & PHYSIOTHERAPY

A Life inActivity

AARHUS NOVEMBER 29TH 2019

professor Bente Klarlund
professor Marie Bement
professor Jan Hartvigsen
ass.prof Henrik Vægter
m.fl.

Læs mere på ***www.smof.dk***

FORSLAG TIL NY PRAKSIS

- ***Stop brugen af vævsbaserede forklaringer*** *på non-specifikke og primær kroniske smerter*
- ***Accepter kompleksiteten*** *og* ***gør terapien meningsfuld*** *baseret på patients livskvalitet, ønsker og afsavn*
- *Gør* ***patienten til eksperten*** *ved at fokusere på deres problemer fremfor 'årsagen' til smerten*
- ***Tillad "non-specific effekts"*** *I behandlingen*

TAK FOR OPMÆRKSOMHEDEN

- ***www.videnomsmerter.dk***
- *Facebook* ***Videnomsmerter***
- *Twitter* ***@mh_dk***
- *Instagram* ***mhdk_drmortenhoegh***