

Derde Nationale  
SCHOUDEER congres  
Joint Together:  
“Flexibility matters”

15 december 2017

# Niet het weefsel maar de pijn centraal, bij de behandeling van schouderpijn

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heliomare



# Doelstelling

Bredere kijk op schouderpijn

Meer mogelijkheden om mensen met schouderpijn te helpen

# Doelstelling

Bredere kijk op schouderpijn

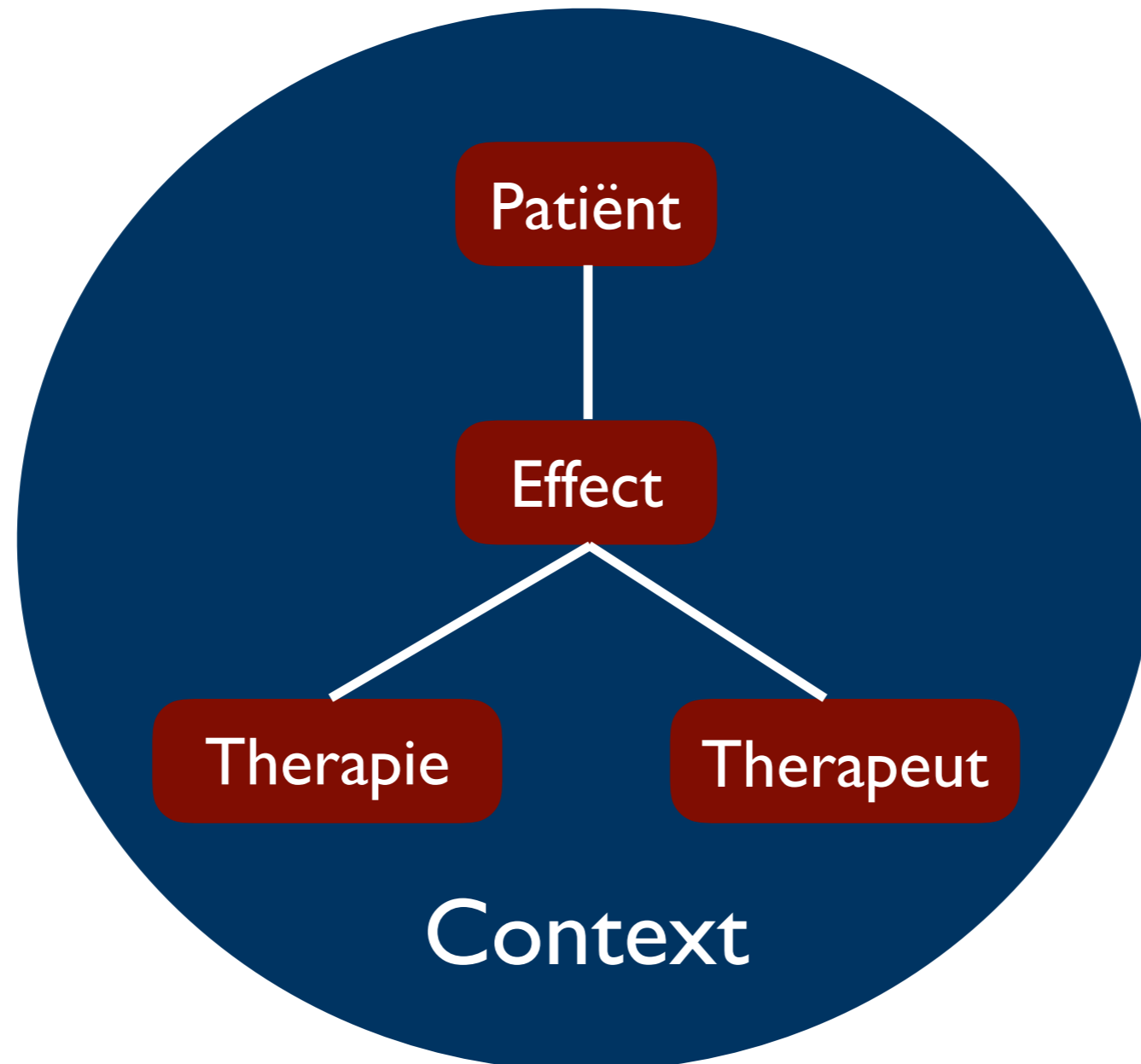
Meer mogelijkheden om mensen met schouderpijn te helpen



# Belang patiënt

Hulpvraag	Evaluatie
Minder pijn	NPRS/ VASpijn
Beter functioneren	SPaDi/ SDQ

# Therapie-effecten



# Wat is er aan de hand?

## **Diagnostiek**

A system of more or less accurate *guessing* in which the endpoint achieved is a name (Sir Thomas Lewis, 1944)

An *effort* to recognize the class or group to which a patients illness belongs (Sackett, 2000)

# De namen zijn nietszeggend!

PHS

SAIS

SAPS

RCRSP

Omdat we het niet weten!

# Bruikbaarheid van klinische tests?

## **Nihil**

Lewis & Tennent, 2007

Hegedus et al., 2012

Hegedus, Cook, Lewis, Wright, Park, 2015

Hegedus & Lewis, 2015

Lewis, Hegedus, Jones, 2017

# Bruikbaarheid van beeldvorming?

## **Nihil**

Er is een **alarmierend lage correlatie** tussen veranderingen zichtbaar op echo/ MRi en symptomen.

# Echo

22% open populatie heeft RC scheur

33% ervaart klachten

Yamamoto et al., 2010, 2011

Minagawa et al., 2013

# Echo - asymptotisch, n=5 |

Subacromial bursa thickening	78%
AC-joint degeneration	65%
Su-Sp tendinosus	39%
Partial thickness tear Su-Sp	22%
Posterior glenoid labral abnormalities	14%



# MRi - SAIS

42 SAIS

31 gematchte asymptotische control

SAIS            55% RC pathology

Control        52% RC pathology

# MRi - 19 asymptomatic professionele baseball pitchers

Tendinopathy	68%
PTT Su-Sp	32%
ACJ osteoarthritis	22%

# MRi - 14 asymptomatic professionele baseball pitchers

## **RC changes**

79%      throwing shoulder

86%      non-throwing shoulder

## **Labral abnormalities**

79%      throwing shoulder

79%      non-throwing shoulder

# Bovendien...



BMJ 2017;358:j3314 doi: 10.1136/bmj.j3314

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## ANALYSIS



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### **New diagnostic tests: more harm than good**

Although new diagnostics may advance the time of diagnoses in selected patients, they will increase the frequency of false alarms, overdiagnosis, and overtreatment in others. **Bjorn Hofmann** and **H. Gilbert Welch** explain how to minimise harm

# Dilemma

**Klinische tests kunnen geen differentiatie aanbrenge(n) in lokalisatie van het letsel**

**Beeldvorming geeft geen uitsluitel over de oorzaak van de pijn, wel veel fout-positieve uitslagen**

# Wat weten we over de prognose?

Lower baseline pain & disability

Patient expectation of complete recovery

Higher pain self-efficacy

Lower pain severity at rest

# Wat weten we over de prognose?

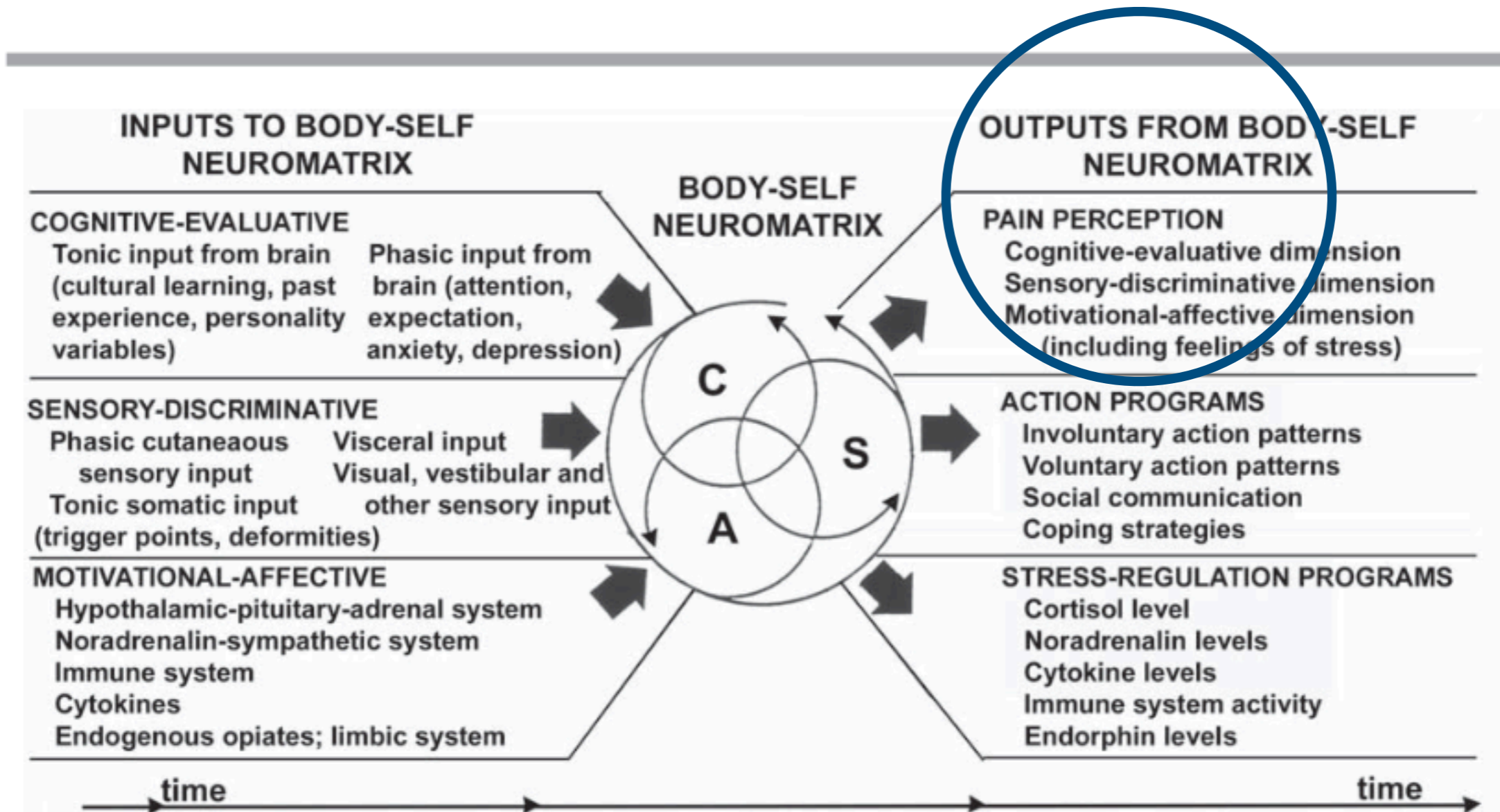
Lower baseline **pain** & disability

**Patient expectation of complete recovery**

**Higher pain self-efficacy**

Lower **pain** severity at rest

# Pijn nader bekeken





# Classificatie van pijn

Nociceptieve pijn

Neuropathische pijn

Centrale sensitatiepijn

Maar...



Maar...




En...

ORIGINAL ARTICLE

WILEY

## **Sensory processing and central pain modulation in patients with chronic shoulder pain: A case-control study**

**K. Kuppens<sup>1,2,3</sup>**  | **G. Hans<sup>4</sup>** | **N. Roussel<sup>1</sup>** | **F. Struyf<sup>1</sup>** | **E. Fransen<sup>5</sup>** | **P. Cras<sup>6</sup>** |  
**C. P. Van Wilgen<sup>2,3,7</sup>** | **J. Nijs<sup>2,3,8</sup>**

Based on these findings, we can conclude that central sensitization is no characteristic feature in chronic musculoskeletal shoulder pain but can be present in individual cases.

# Classificatie van pijn

Nociceptieve pijn

Neuropathische pijn

Centrale sensitatiepijn

# Classificatie van pijn

Nociceptieve pijn

Inflammatoire pijn

Neuropathische pijn

Dysfunctionele pijn

# Nociceptieve pijn

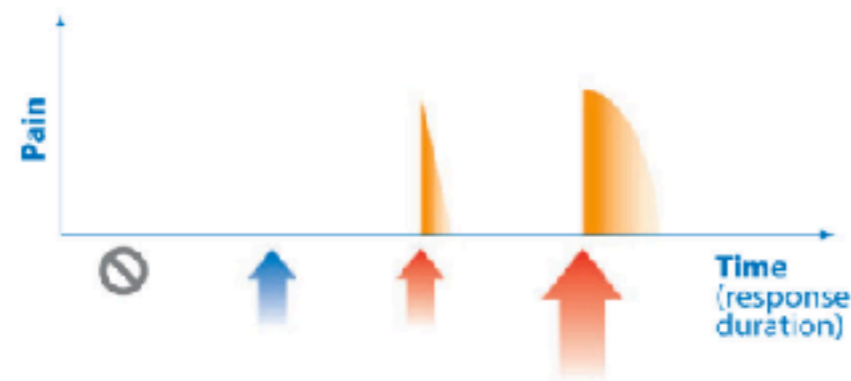
**a**

## Nociceptive pain

No nervous system lesion or inflammation

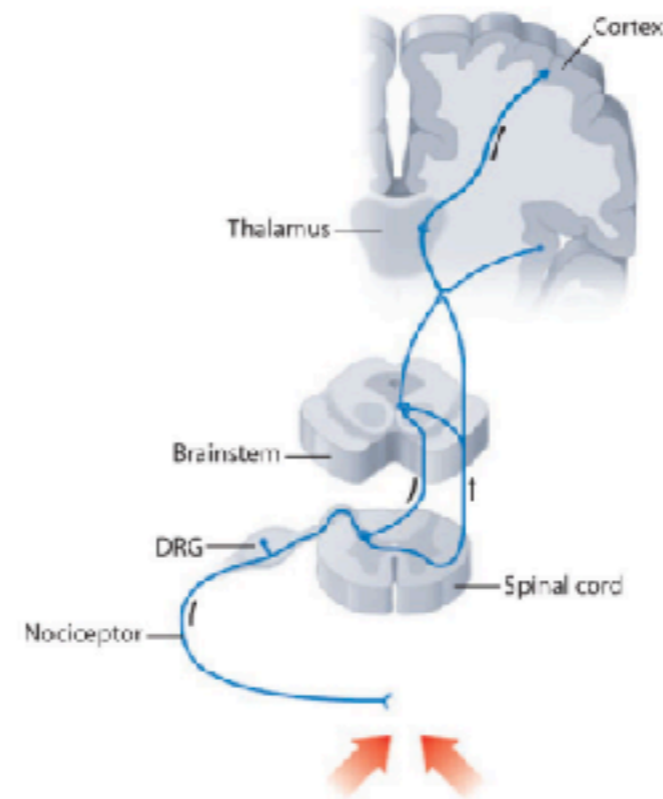
Stimulus-dependent pain

Evoked by high-intensity (noxious) stimuli



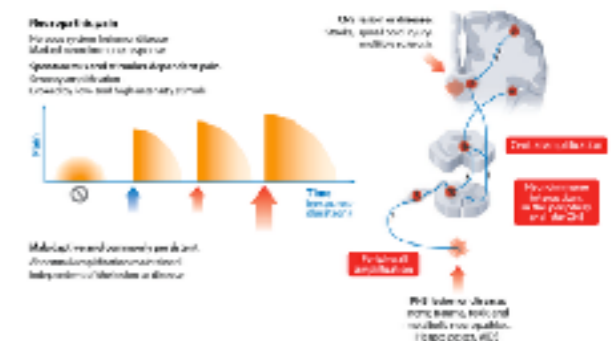
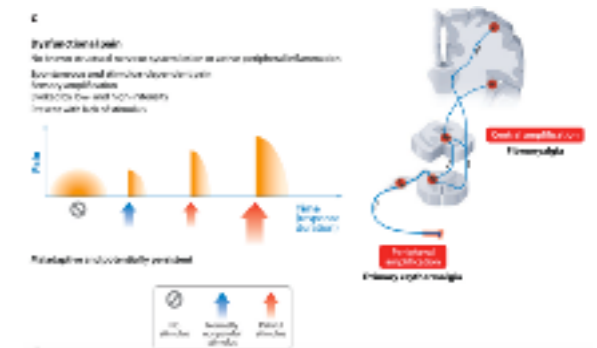
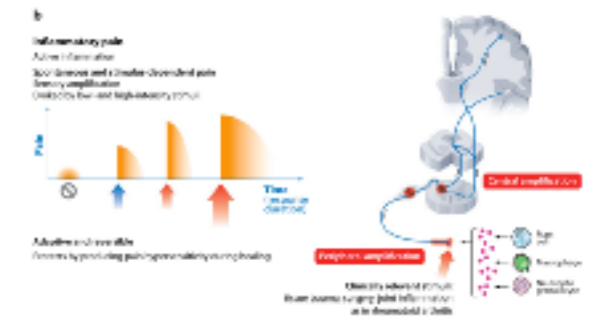
**Adaptive**

Protects by signaling potential tissue damage



**Physiological stimuli:**  
mechanical (pinprick),  
thermal (noxious heat or cold),  
chemical injury

**Clinically relevant stimuli:**  
abnormal mechanical  
forces (osteoarthritis),  
organ injury (angina,  
ischemic claudication)



# Inflammatoire pijn

**b**

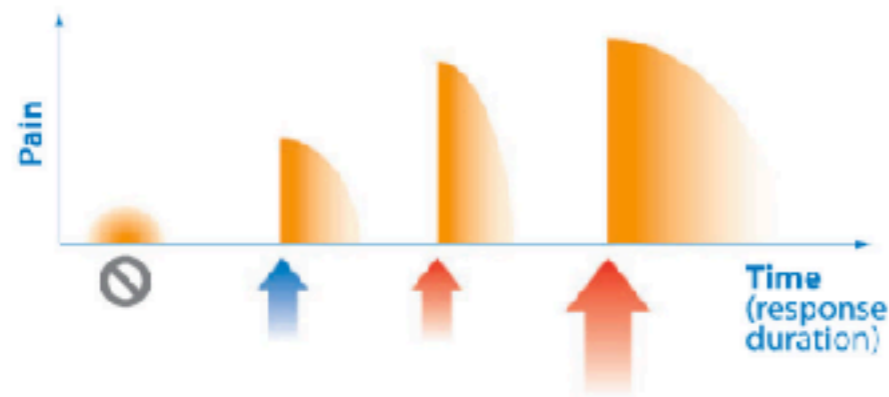
## Inflammatory pain

Active inflammation

### Spontaneous and stimulus-dependent pain

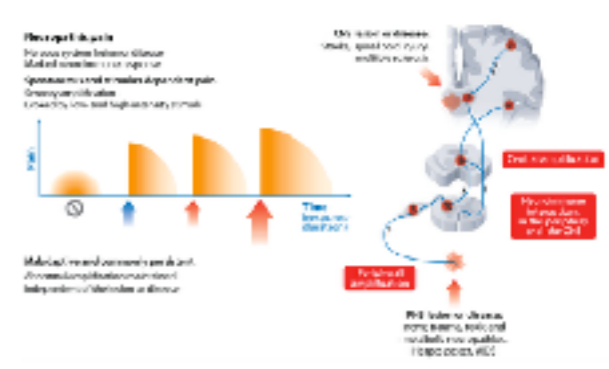
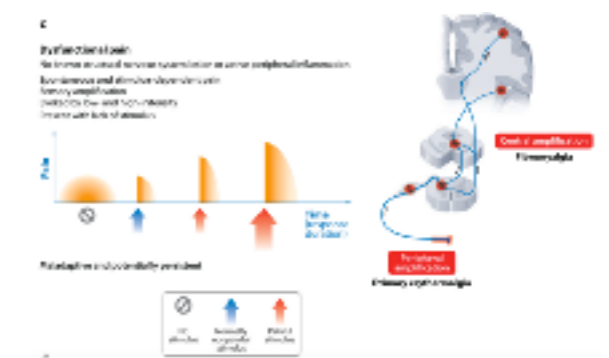
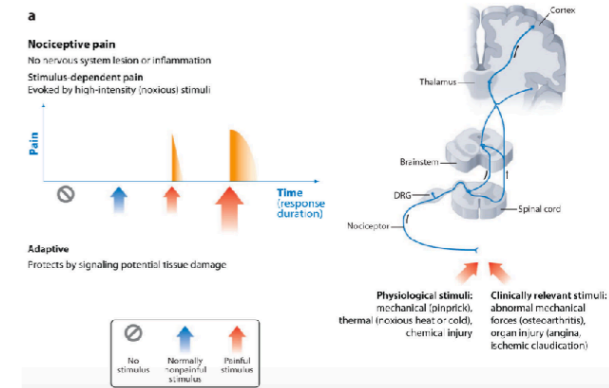
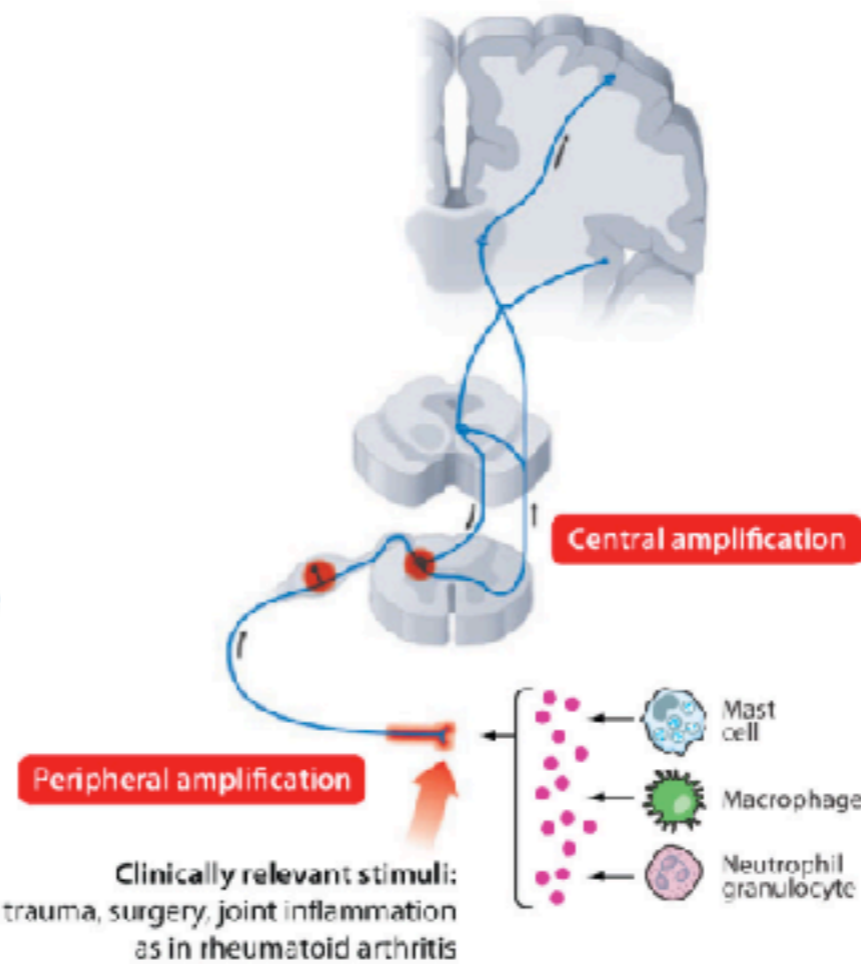
Sensory amplification

Evoked by low- and high-intensity stimuli



**Adaptive and reversible**

Protects by producing pain hypersensitivity during healing





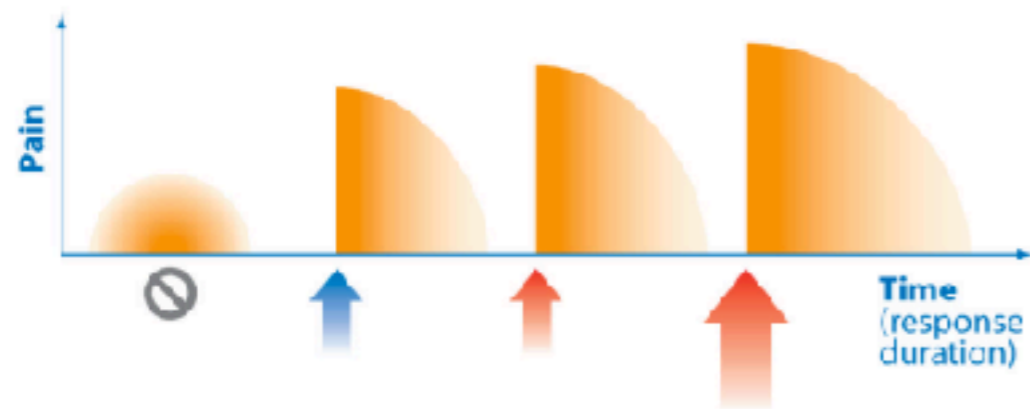
# Neuropathische pijn

## Neuropathic pain

Nervous system lesion or disease  
Marked neuroimmune response

### Spontaneous and stimulus-dependent pain

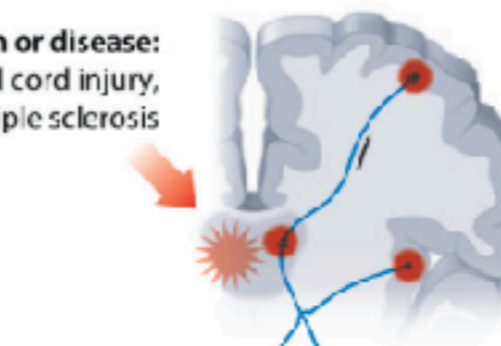
Sensory amplification  
Evoked by low- and high-intensity stimuli



### Maladaptive and commonly persistent

Abnormal amplification maintained independent of the lesion or disease

CNS lesion or disease:  
Stroke, spinal cord injury,  
multiple sclerosis

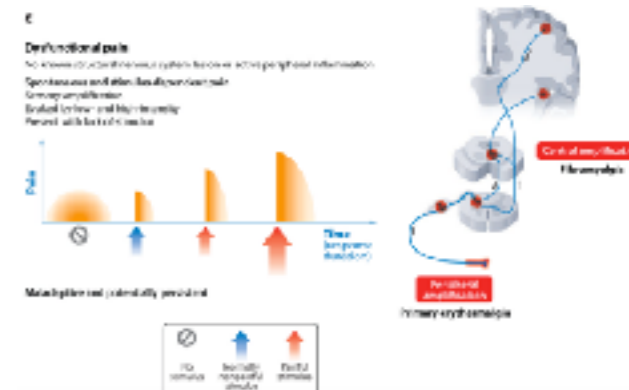
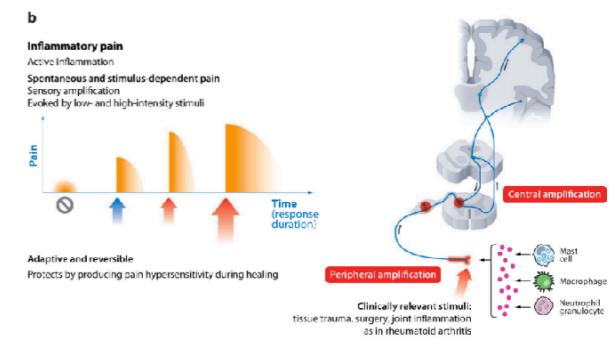
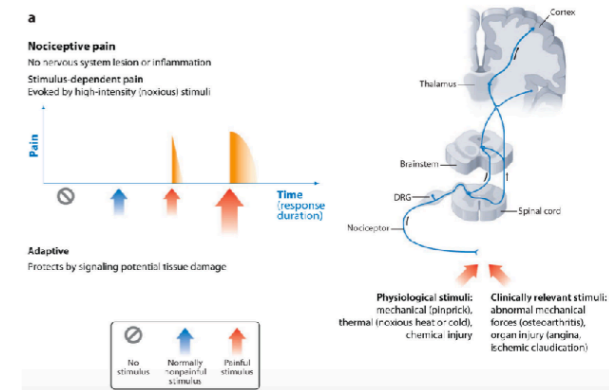


Central amplification

Neuroimmune interactions in the periphery and the CNS

Peripheral amplification

PNS lesion or disease:  
nerve trauma, toxic and metabolic neuropathies,  
Herpes zoster, AIDS



# Disfunctionele pijn

**c**

## Dysfunctional pain

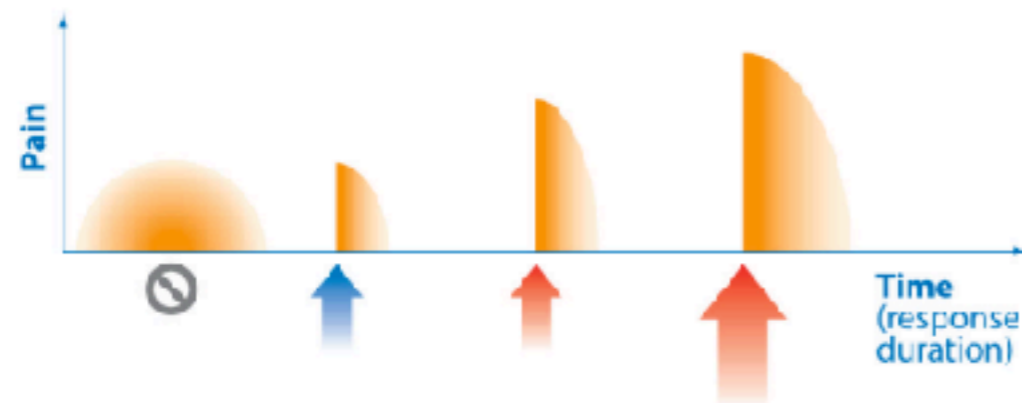
No known structural nervous system lesion or active peripheral inflammation

### Spontaneous and stimulus-dependent pain

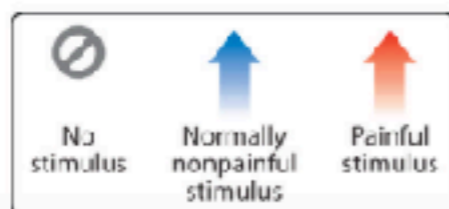
Sensory amplification

Evoked by low- and high-intensity

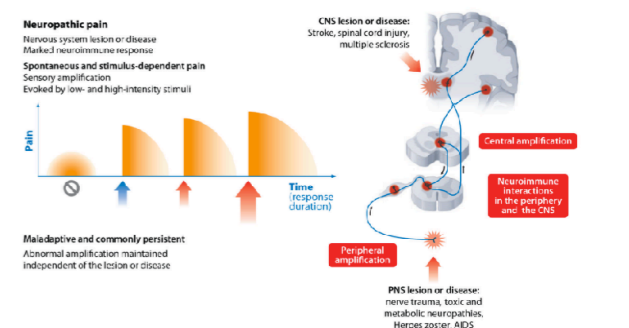
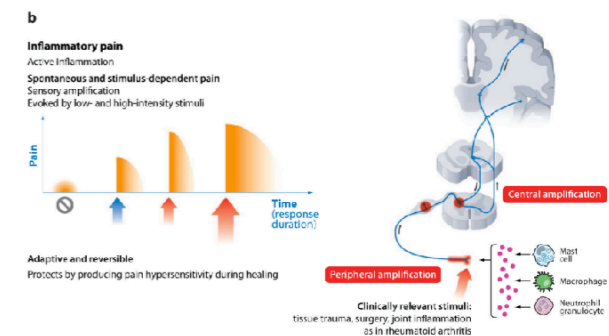
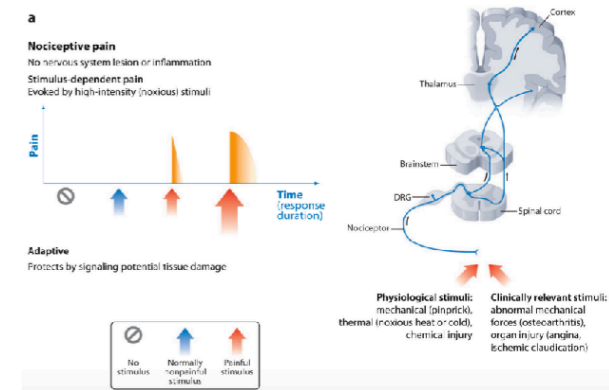
Present with lack of stimulus



Maladaptive and potentially persistent



Primary erythralgia



# Pijn nader bekeken

Pijn is een output, geen input

Er bestaan geen pijnsensoren/ -prikkelers

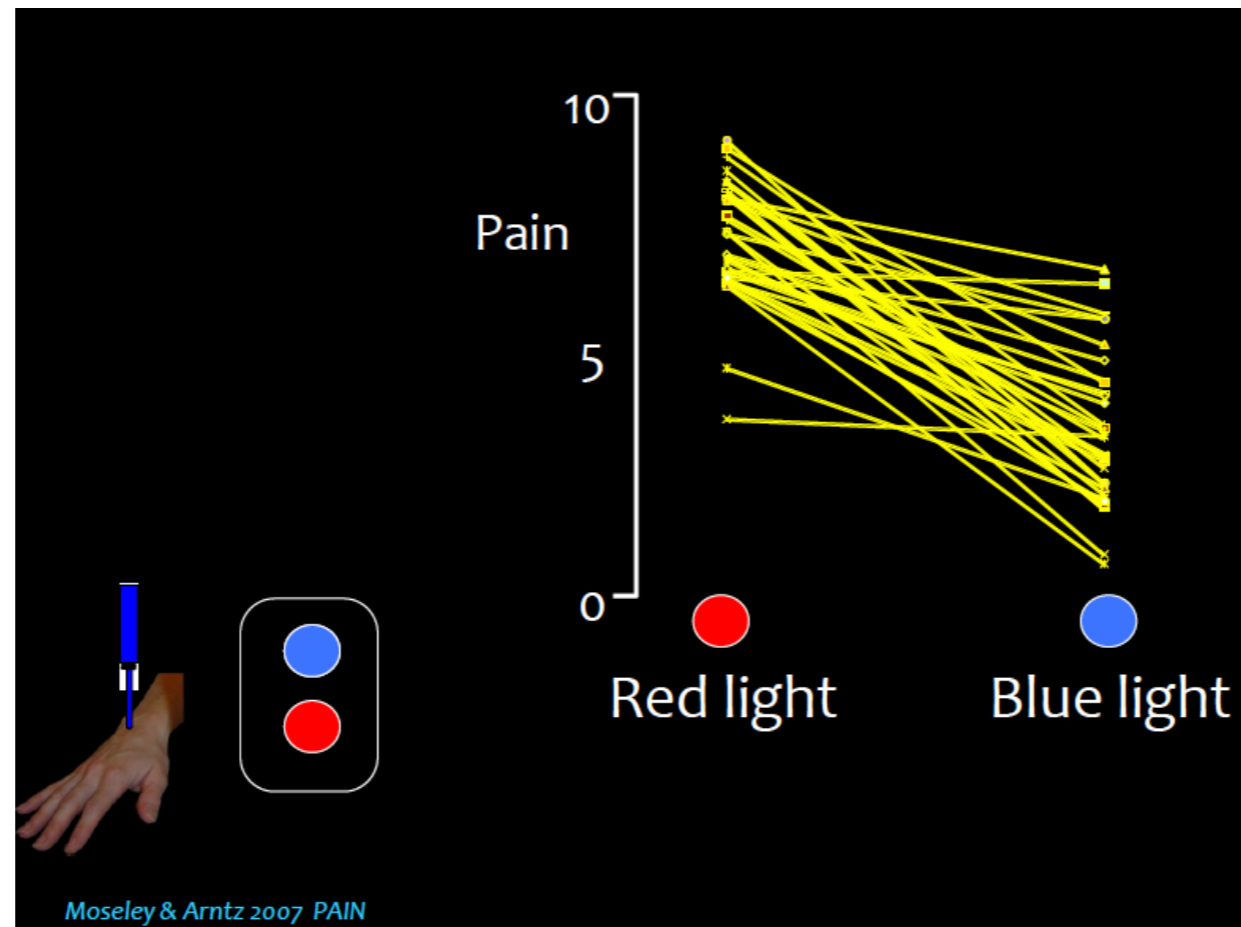
Pijn zegt *niets* over de toestand van het weefsel

Pijn is multidimensioneel bepaald

Pijn is afhankelijk van context

Evolutionaire doel van pijn is *bescherming*

# Pijn draait om bescherming



# Pijn draait om bescherming

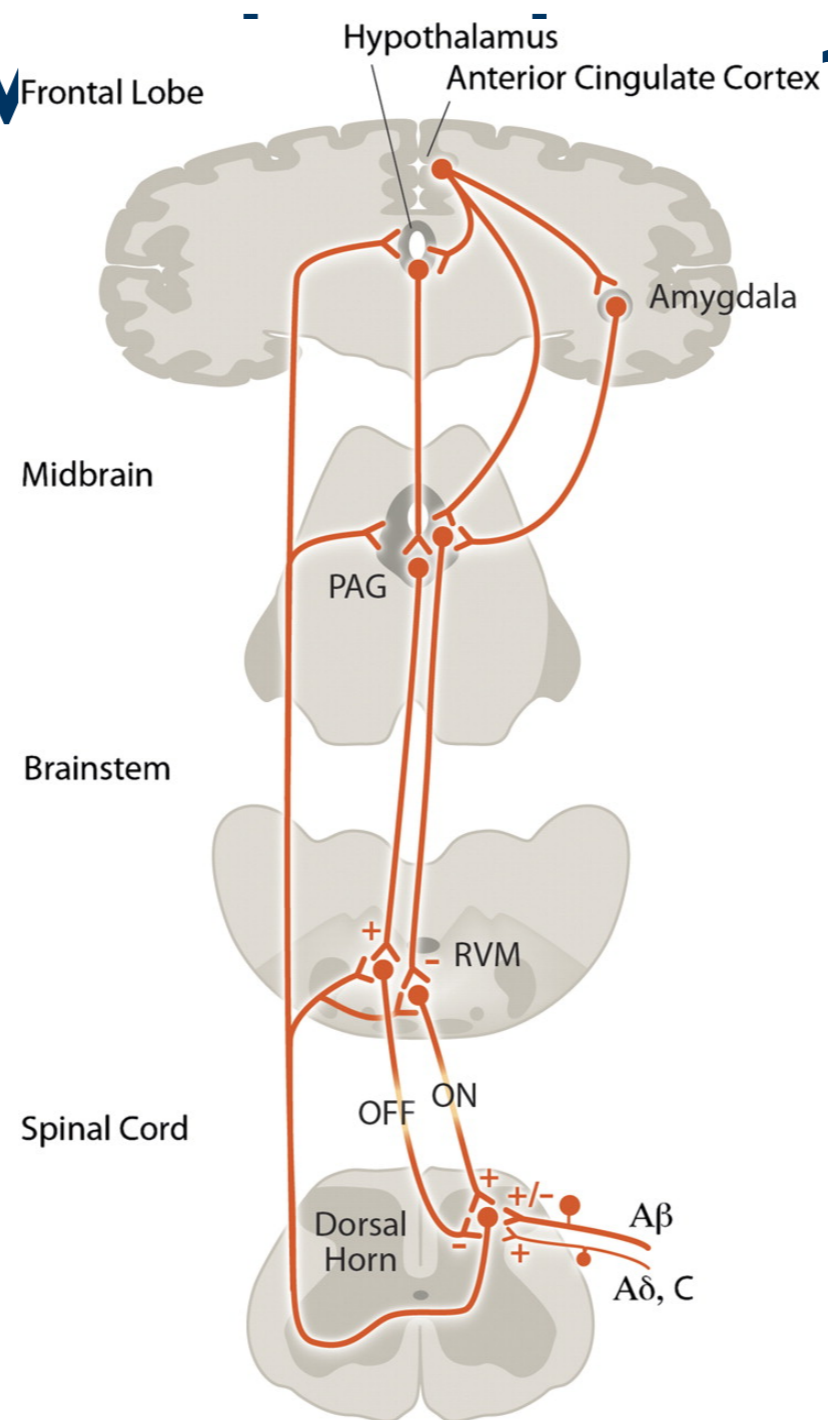
(Verondersteld) fysiek letsel  
Interpersoonlijke onveiligheid  
Intrapersoonlijke onveiligheid

Perfectionism  
is self-abuse  
of the highest  
order.

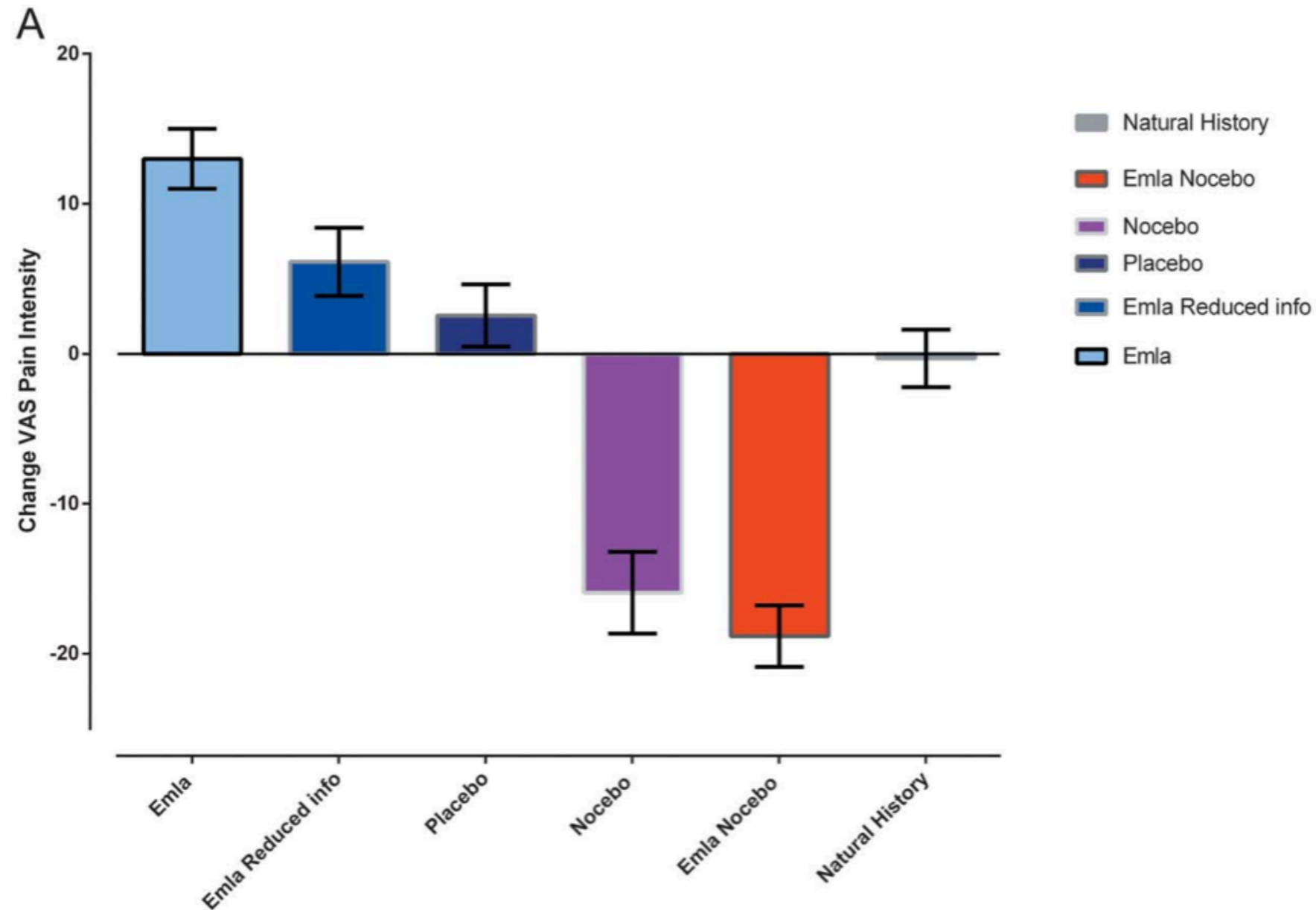


**Aanjager van bescherming: anxiety**

# Aanjager v $\bar{v}$ ring: anxiety



# Aanjager van bescherming: anxiety





# Denk goed na over wat je zegt

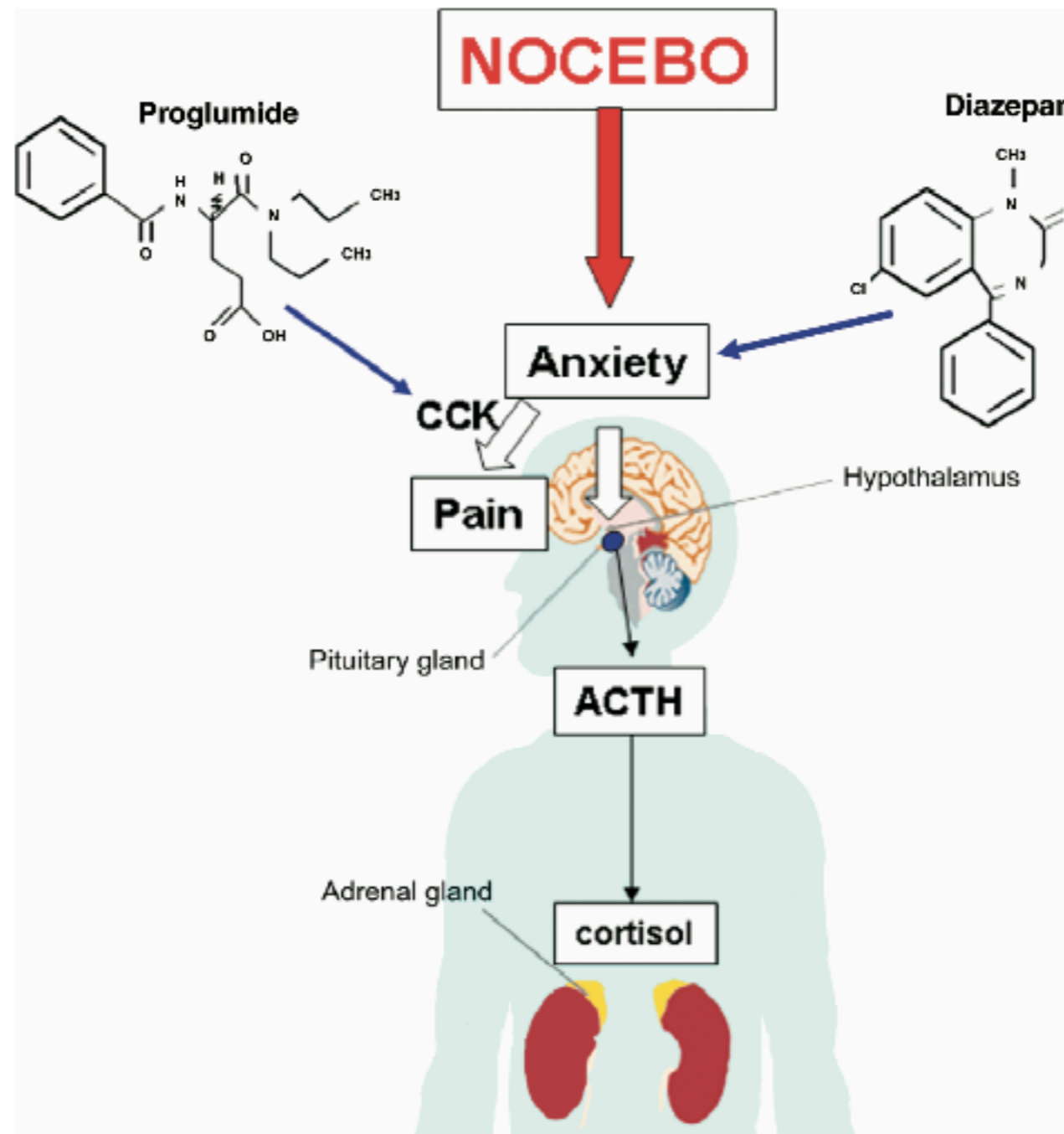
## REVIEW

### WHEN WORDS ARE PAINFUL: UNRAVELING THE MECHANISMS OF THE NOCEBO EFFECT

**F. BENEDETTI,\* M. LANOTTE, L. LOPIANO  
AND L. COLLOCA**

*Department of Neuroscience, University of Turin Medical School,  
Corso Raffaello 30, 10125 Turin, Italy*

# Denk goed na over wat je zegt



# Denk goed na over wat je zegt

Ernstige ontsteking

Doe voorzichtig

Meer pijn is meer schade

Te weinig ruimte/ ingeklemd/ nijptangmechanisme

Pijn wordt veroorzaakt door een scheur in de pees

Opereren is noodzakelijk anders wordt de scheur groter

# Exercise induced hypoalgesia



RESEARCH  
EDUCATION  
TREATMENT  
ADVOCACY



The Journal of Pain, Vol 18, No 11 (November), 2017: pp 1409-1416  
Available online at [www.jpain.org](http://www.jpain.org) and [www.sciencedirect.com](http://www.sciencedirect.com)

## Explicit Education About Exercise-Induced Hypoalgesia Influences Pain Responses to Acute Exercise in Healthy Adults: A Randomized Controlled Trial



Matthew D. Jones,<sup>\*,†</sup> Trinidad Valenzuela,<sup>\*,†,‡</sup> John Booth,<sup>\*</sup> Janet L. Taylor,<sup>\*,†,§</sup>  
and Benjamin K. Barry<sup>\*,†,¶</sup>

# Samenvattend - I

- \* Weefsel-/ structuurdiagnostiek bij RCRSP is niet valide
- \* Geven van een diagnose is dus niet meer dan een “educated guess”: niet doen
- \* Maak serieus werk van de beïnvloeding van pijn
- \* Inventariseer andere bronnen van onveiligheid

# Samenvattend - 2

- \* Meld geen ongunstige prognose
- \* Creëer positieve verwachtingen
- \* Stimuleer self-efficacy
- \* Vermijd anxiety
- \* **Oefen** - belast het weefsel en...
- \* Duid de pijn, stel gerust
- \* Kies de juiste woorden



**Dank voor uw  
aandacht  
!**

