



# Hypnosis and the experience of pain

Dr Ann Williamson

British Society of Clinical and Academic Hypnosis  
[www.bscah.com](http://www.bscah.com)

**Hypnosis** has been defined as “A social interaction in which one person, designated the subject, responds to suggestions offered by another person, designated the hypnotist, for experiences involving alterations in perception, memory and voluntary action”  
Kilstrom (1985)<sup>1</sup>

Hypnosis has been used to treat every type of pain condition over centuries and across cultures (Pintar & Lynn, 2008)<sup>2</sup> and can be an extremely effective treatment for both acute and chronic pain. It is one of the most well researched areas in clinical hypnosis.

## **Hypnotic analgesia is dependent upon suggestion**

A key fact is that the induction of hypnosis by itself does not generate significant pain relief. It is the suggestion inside a hypnotic framework, or at least the expectation of pain relief which leads to reduction of pain. A number of studies have specifically assessed pain relief following a hypnotic induction, or the induction of hypnosis + specific suggestions (Knox et al, 1974<sup>3</sup>; Zachariae et al, 1998<sup>4</sup>). The induction of hypnosis alone is not generally sufficient to achieve significant pain relief.

## Hypnotic analgesia is not dependent upon endorphins

This was tested experimentally by Goldstein & Hilgard in 1975<sup>5</sup>

## Hypnotic analgesia is not dependent upon relaxation

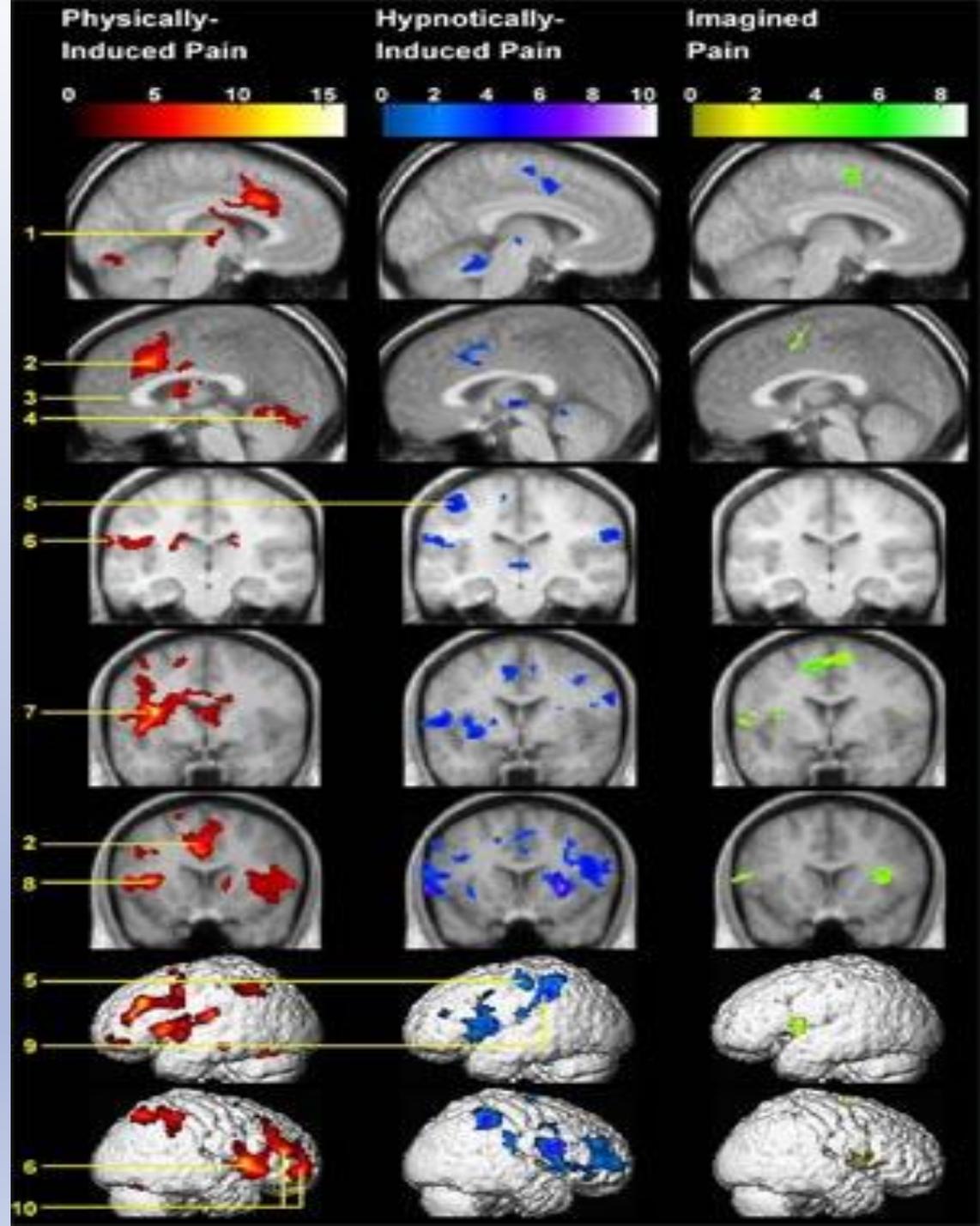
This hypothesis has been tested experimentally by Miller and colleagues 1991<sup>6</sup>

## Using hypnosis to generate pain in the absence of a noxious stimulus

In a study investigating functional pain (pain without an obvious physical cause) Derbyshire and colleagues (2004)<sup>7</sup> published a study investigating brain activity in highly hypnotisable participants while they experienced physically-induced (PI), hypnotically-induced (HI), or imagined pain.

Figure: Pain activations reported by Derbyshire et al (2004) in response to physically-induced (red), hypnotically-induced (blue), and imagined (green) pain.

If the brain can create sensation of pain with hypnosis, then the brain should be able to reduce the sensation of pain with hypnosis.



Unlike pharmacological treatments for pain, hypnosis has no negative side effects. Positive secondary benefits, such as improved well-being, sleep and sense of control, have been found in many studies.

*Hypnotic approaches for chronic pain management: clinical implications of recent research findings. (2014) Jensen, M. P., Patterson, D. R. American Psychologist 69(2), 167-177*

This useful article reviews much of the current literature on the use of hypnosis in pain management.

There have been a number of meta-analyses of hypnosis for pain control

*A meta-analysis of hypnotically induced analgesia: how effective is hypnosis?  
Montgomery G, DuHamel K, Redd W (2000) International Journal of Clinical and  
Experimental Hypnosis 48(2), 138-53*

Compared studies that evaluated hypnotic pain reduction in healthy volunteers vs. those using patient samples, compared hypnoanalgesic effects and participants' hypnotic suggestibility, and determined the effectiveness of hypnotic suggestion for pain relief relative to other nonhypnotic psychological interventions. Meta-analysis of 18 studies revealed a moderate to large hypnoanalgesic effect, supporting the efficacy of hypnotic techniques for pain management.

*The effectiveness of adjunctive hypnosis with surgical patients: A meta-analysis. (2002) Montgomery, G. H., David, D., Winkel, G., Siverstein, J. H., Bovbjerg, D. H. Anesthesia and Analgesia 94(6), 1639-1645.*

*The Effectiveness of Suggestive Techniques in Reducing Postoperative Side Effects: A Meta-Analysis of Randomized Controlled Trials. (2014) Kekecs, Z., Nagy, T., Varga, K. Anesthesia & Analgesia, 119(6), 1407-1419.*

Post-op side effects such as pain, nausea, distress were reduced – recent studies also seem to support generic scripted hypnosis and audio delivery

*Stoelb BL, Molton IR, Jensen MP, Patterson DR. The efficacy of hypnotic analgesia in adults: a review of the literature. Contemp Hypn. 2009 Mar 1;26(1):24-39.*

The results indicate that for both chronic and acute pain conditions: (1) hypnotic analgesia consistently results in greater decreases in a variety of pain outcomes compared to no treatment/standard care; (2) hypnosis frequently outperforms non-hypnotic interventions (e.g. education, supportive therapy) in terms of reductions in pain-related outcomes

*Jensen M P & Patterson D R. (2014) Hypnotic approaches for chronic pain management: clinical implications of recent research findings. Am Psychol. 69(2):167-77.*

13 studies including headaches, low back pain, arthritis, fibromyalgia, TMJ pain and cancer pain found hypnotic approaches significantly more effective than the control condition.

*A meta-analysis of hypnosis for chronic pain problems: a comparison between hypnosis, standard care, and other psychological interventions. (2014) Adachi T1, Fujino H, Nakae A, Mashimo T, Sasaki J. International Journal of Clinical and Experimental Hypnosis 62 (1) 1-28.*

When compared with standard care, hypnosis provided moderate treatment benefit. Hypnosis also showed a moderate superior effect as compared to other psychological interventions for a non-headache group. The results suggest that hypnosis is efficacious for managing chronic pain.

*Thompson T, Terhune DB, Oram C, Sharangparni J, Rouf R, Solmi M, Veronese N, Stubbs B. The effectiveness of hypnosis for pain relief: A systematic review and meta-analysis of 85 controlled experimental trials. Neurosci Biobehav Rev. 2019 Apr;99:298-310.*

Eighty-five eligible studies were identified, consisting of 3632 participants. Random effects meta-analysis found analgesic effects of hypnosis for all pain outcomes ( $g=0.54-0.76$ ,  $p's<.001$ ). Efficacy was strongly influenced by hypnotic suggestibility and use of direct analgesic suggestion.

*Milling, L. S., Valentine, K. E., LoStimolo, L. M., Nett, A. M., & McCarley, H. S. (2021). Hypnosis and the Alleviation of Clinical Pain: A Comprehensive Meta-Analysis. International Journal of Clinical and Experimental Hypnosis, 69(3), 297–322.*

Meta analysis of 42 studies showed that the most conservative estimates of the impact of hypnosis on pain yielded mean weighted effect sizes of 0.60 ( $p \leq .001$ ) for 40 post trials and 0.61 ( $p \leq .001$ ) for 9 follow-up trials. These effect sizes fall in the medium range according to Cohen's guideline and suggest the average participant receiving hypnosis reduced pain more than about 73% of control participants.

These findings strengthen the assertion that hypnosis is a very efficacious intervention for alleviating clinical pain

*Langlois P, Perrochon A, David R, Rainville P, Wood C, Vanhaudenhuyse A, Pageaux B, Ounajim A, Lavallière M, Debarnot U, Luque-Moreno C, Roulaud M, Simoneau M, Goudman L, Moens M, Rigoard P & Billot M. (2022) Hypnosis to manage musculoskeletal and neuropathic chronic pain: A systematic review and meta-analysis. Neuroscience & Biobehavioral Reviews, 135:104591.*

Hypnosis treatment is able to relieve chronic neuropathic and musculoskeletal pain

Hypnosis treatment yielded moderate effect on pain intensity and pain interference

8 hypnosis sessions or more provided significant pain relief

Remember

Whatever you see

Whatever you hear

can be interpreted  
with either a negative  
or a positive frame

Noisy machines – frightening ++ or meaning that you  
are being looked after and cared for?



# How could you re-phrase these?

- Just a sharp scratch

If you would like to make a fist in your left hand, I'll just take the blood sample (from the right arm)

- Don't worry, this examination is not painful

Most people find this examination doesn't bother them at all

- You can have some pain killers if you need them

You can have something to keep you comfortable if you need it

- There is a bowl on the side in case you feel sick

There is a bowl on the side in case you want to rinse your mouth out

Hypnotic approaches for acute pain relief typically take three forms:

- . Direct suggestion for symptom change
- . Dissociative approaches – which encourage the patient to mentally 'go elsewhere' and leave the pain behind
- . Resource utilisation - in which the patient uses their internal creativity and imagination

Management of chronic pain may include all the above but also often needs to address co-morbidities such as depression or psychosomatic symptomatology.

# Hypnosis and Pain Control Informal Techniques

Avoid negatives

'Reframing' sensation

NEVER say you won't feel anything!

Waking suggestion – times when it is a bit easier?

Relaxation and lowered pain thresholds

# Hypnosis and Pain Control – Formal Techniques

Indirect Suggestion (so comfortable that nothing need bother you)

Direct suggestion (your mouth and tooth can feel completely numb)

Classic Imagery (magic creams, dials etc)

Client generated imagery

Glove anaesthesia and transfer

Acute situation: Work with what you have

Focus of attention

Desire to be somewhere else

Tension

In pain or anxiety patients have a narrowed focus of attention

Patient's focus of attention is on procedure and/or pain



You get what you focus on  
– so focus on what you want

Focus of Attention

Breathing

“...one of the best ways to relax is simply to start to notice your breathing...”

Suggestion

Maybe you can begin to breathe in calmness with each breath in...

I wonder whether that might be a colour.... or just a feeling.... Or maybe both?

And as you breathe out... you can let go tension.... with each breath out

Breathing in calmness....

Breathing out any tension...

“...and as you continue to focus on your breathing, I’m sure you can think of a time when you felt completely relaxed, maybe on a holiday or another pleasant memory....”

# Engage imagination

If I gave you a magic wand

- where would it take you?

Where would you rather like to be than here?

What is it like? What can you hear? Smell?

Can you reach out and touch things?



Maybe you can be curious about  
where you could go in your imagination,  
maybe somewhere exciting,  
maybe somewhere peaceful and calm?



I wonder if you would like to go back  
to a time and place  
where you felt really good?





“You may want to float away to your own pleasant place for a few moments whilst we take care of you here... And you can notice all the pleasant sights and sounds and textures around you...and maybe take some time now to explore and enjoy this place, where nothing bothers you, nothing disturbs you...”

# Work with what you have

Muscle tension

Again – capture focus of attention  
and then direct it

**Clenched fist technique**  
for the anxious patient



# References

1. Kihlstrom, J. F. (1985). Hypnosis. *Annual Review of Psychology*, 36, 385-418.
2. Hypnosis: A Brief History (2008) Judith Pintar, Steven Jay Lynn ISBN: 978-1-4051-3452-1 Wiley-Blackwell
3. Knox, V. J., Morgan, A. H., Hilgard, E. R. (1974). Pain and suffering in ischemia: the paradox of hypnotically suggested anesthesia as contradicted by reports from the 'hidden observer'. *Archives of General Psychiatry*, 30, 840-847.
4. Zachariae, R., Andersen, O. K., Bjerring, P., Jorgensen, M. M. (1998). Effects of an opioid antagonist on pain intensity and withdrawal reflexes during induction of hypnotic analgesia in high- and low-hypnotizable volunteers. *European Journal of Pain*, 2, 25-34.
5. Goldstein, A., Hilgard, E. R. (1975). Failure of opiate antagonist Naloxone to modify hypnotic analgesia. *Proceedings of the National Academy of Sciences, USA*, 6, 2041-2043.
6. Miller, M. F., Barabasz, A. F., Barabasz, M. (1991). Effects of active alert and relaxation hypnotic inductions on cold pressor pain. *Journal of Abnormal Psychology*, 100(2), 223-226.
7. Derbyshire, S. W. G., Whalley, M. G., Stenger, V. A., Oakley, D. A. (2004). Cerebral activation during hypnotically induced and imagined pain. *NeuroImage*, 27: 969-78

# Some useful books

Acosta J (2002) *The Worst is Over*. Jodere Group. ISBN-10: :149437653.  
ISBN-13: 978-1494376536 (*very useful language skills*)

Varga K (2011) *Beyond the Words*.  
ISBN-10: 1616685905 ISBN-13: 978-1616685904

Lang E & Laser E (2011) *Patient Sedation Without Medication*. CreateSpace Independent Publishing Platform

Williamson A (2008) *Brief Psychological Interventions in Practice*. Wiley  
(*easy reading and as it says in the title...*)

Cyna A, Andrew M, Tan S, & Smith A (2010) *Handbook of Communication in Anaesthesia & Critical Care*. Wiley & Sons. ISBN: 9780199577286

Eds: Brann L, Owens J & Williamson A (2011) [A Handbook of Contemporary Clinical Hypnosis](#)  
*The BSCAH 'textbook' – A general text with chapters on pain*

Patterson DR (2010) *Clinical Hypnosis for Pain Control*. American Psychological Association.  
(*excellent, authoritative*)

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