

## **Pain Control Hypnosis Research References**

### **Compiled by Bruce Eimer, Ph.D. (July, 2023)**

Research on the use of hypnosis for alleviating chronic pain has been promising, and the field is continually evolving. It is essential to note that hypnosis is not a one-size-fits-all solution for pain control. Individual responses to hypnosis do vary, and not all chronic pain conditions are equally responsive to hypnosis. Hypnosis as a treatment tool should be used as part of a comprehensive pain management plan. Here are some key findings from recent research:

1. **Brain Imaging Studies:** Neuroimaging studies have shown that hypnosis can influence brain activity and alter the perception of pain. Functional magnetic resonance imaging (fMRI) studies have revealed changes in brain regions associated with pain processing when individuals are under hypnosis. These changes suggest that hypnosis may modulate pain perception by affecting neural pathways involved in pain processing (Bicego et al., 2022; Wolf et al., 2022).
2. **Reduced Pain Intensity:** Several studies have demonstrated that hypnosis can lead to a significant reduction in pain intensity for individuals suffering from chronic pain conditions. This reduction in pain has been observed in conditions such as fibromyalgia, irritable bowel syndrome (IBS), and chronic tension headaches (Bicego et al., 2022; Brugnoli et al., 2018; Jensen et al., 2020; Jensen & Patterson, 2014; Milling et al., 2021).
3. **Improved Pain Coping:** Hypnosis has been shown to improve coping mechanisms and pain management strategies in individuals with chronic pain. This can lead to better overall functioning and an improved quality of life despite the presence of pain (Ciaramella, 2023; Ehde et al., 2014; Eimer & Hunter, 2020; Jensen, 2016).
4. **Non-pharmacological Alternative:** Hypnosis offers a non-pharmacological approach to pain management, which can be particularly beneficial for individuals who may be reluctant to use or rely on medications for pain relief (Eimer & Hunter, 2020; Milling et al., 2021).
5. **Complementary Treatment:** Hypnosis can be used in conjunction with other pain management techniques and therapies, such as cognitive-behavioral therapy (CBT) or physical therapy, to enhance their effectiveness (Franch et al., 2023; McKernan et al., 2020; Williams et al., 2022).
6. **Reduced Healthcare Costs:** As hypnosis is generally a cost-effective intervention, it may help reduce healthcare costs associated with chronic pain management by potentially reducing the need for expensive medications or invasive procedures.

Bicego, A., Rousseaux, F., Faymonville, M.E., Nyssen, A.S., & Vanhaudenhuyse, A. (2022). Neurophysiology of hypnosis in chronic pain: A review of recent literature. *American Journal of Clinical Hypnosis*. 64(1), 62-80.

Bowker, E. and D. Dorstyn (2016). "Hypnotherapy for disability-related pain: A meta-analysis." *Journal of Health Psychology*. 21(4): 526-539.

Brugnoli, MP, Pesce, G, Pasin, E, Basile, MF, Tamburin, S, & Polati, E. (2018). The role of clinical hypnosis and self-hypnosis to relief pain and anxiety in severe chronic diseases in palliative care: A 2-yearlong-term follow-up of treatment in a nonrandomized clinical trial. *Annals of Palliative Medicine*. 7(1), 17-31.

## Pain Control Hypnosis Research References

Brown, D.P. & Fromm, E. (1987). *Hypnosis and behavioral medicine*. Hillsdale, NJ: Lawrence Erlbaum.

Chaves, J.F. & Dworkin, S.F. (1997). Hypnotic control of pain: Historical perspectives and future prospects. *International Journal of Clinical and Experimental Hypnosis*. 45(4), 356-376.

Cheek, D.B. (1994). *Hypnosis: The application of ideomotor procedures*. Boston: Allyn & Bacon.

de la Vega R, Mendoza ME, Chan JF, Jensen MP. (2019). Case Study: Cognitive Restructuring Hypnosis for Chronic Pain in a Quadriplegic Patient. *American Journal of Clinical Hypnosis*. 61(4):394-408.

Ciaramella, A. (2023). Hypnotic analgesia in chronic pain: Role of psychopathology and alexithymia. *American Journal of Clinical Hypnosis*. 65(4), 299-313.

Ehde, D. M., et al. (2014). "Cognitive-behavioral therapy for individuals with chronic pain: Efficacy, innovations, and directions for research." *American Psychologist* 69(2): 153-166.

Eimer, B.N. (1988). The chronic pain patient: Multimodal assessment & psychotherapy. *International Journal of Medical Psychotherapy*, 1, 23-40.

Eimer, B.N. (1989). Psychotherapy for chronic pain: A cognitive approach. In A. Freeman, K.M. Simon, L. Beutler, & H. Arkowitz, (Eds.), *Comprehensive handbook of cognitive therapy* (pp. 449-465). New York: Plenum Press.

Eimer, B.N. (2000a). Clinical applications of hypnosis for brief and efficient pain management psychotherapy. *American Journal of Clinical Hypnosis*, Vol. 43, No. 1, 17-40.

Eimer, B.N. (2000b, Summer). Hypnosis for the relief of pain: What's possible and what's not. *Psychological Hypnosis*, Vol. 9, No. 2.

Eimer, B.N. (2002). *Hypnotize yourself out of pain now!* Oakland, CA: New Harbinger.

Eimer, B.N. (2008). [Hypnotize yourself out of pain now \(Second Edition\)](#). Carmarthen, Wales, UK: Crown House Publishing (CD also available).

Eimer, B.N. (2012). Minimizing the risks of inadvertent adverse consequences of clinical and forensic hypnosis. *American Journal of Clinical Hypnosis*. 55, 8-31.

Eimer, B.N., & Freeman, A. (1998). *Pain management psychotherapy: A practical guide*. New York: John Wiley and Sons.

Eimer, B.N., & Hunter, C.R. (2020). *Taming chronic pain: A mindful approach for bringing pain relief*. Amazon Kindle Books.

## Pain Control Hypnosis Research References

- Elkins, G., Jensen, MP, & Patterson, DR (2007). Hypnotherapy for the management of chronic pain. *International Journal of Clinical and Experimental Hypnosis*. 55(3), 275-287.
- Evans, F.J. (2001). Hypnosis and the management of chronic pain. In L.F. Fredericks (Ed.), *The use of hypnosis in surgery and anesthesiology: Psychological preparation of the surgical patient*, (pp. 31-56). Springfield, IL: Charles C. Thomas.
- Ewin, D.M. & Eimer, B.N. (2006). *Ideomotor signals for rapid hypnoanalysis: A how-to manual*. Springfield, IL: CC Thomas.
- Flynn, N. (2018). Systematic review of the effectiveness of hypnosis for the management of headache. *International Journal of Clinical and Experimental Hypnosis*. 66(4), 343-352.
- France et al. (2002). Catastrophizing is related to pain ratings, but not nociceptive flexion reflex threshold. *Pain*, 99, 459-463.
- Franch, M., Alarcon, A., Capafons, A. (2023). Applications of hypnosis as an adjuvant in oncological settings: a systematic review. *International Journal of Clinical and Experimental Hypnosis*. 71(1), 1-24.
- Geagea, D., Ogez, D., Kimble, R., & Tyack, Z. (2023). Demystifying hypnosis: Unravelling facts, exploring the historical roots of myths, and discerning what is hypnosis. *Complementary Therapies in Clinical Practice*. Volume 52, August 2023, 101776.
- Hilgard, E.R., & Hilgard, J.R. (1994). *Hypnosis in the relief of pain* (Rev. ed.). New York: Brunner/Mazel.
- Jensen, M.P. (2016). Pain management-chronic pain. In G. Elkins (Ed.), *Handbook of medical and psychological hypnosis* (pp. 341-361). New York: Springer Publishing Company.
- Jensen, M.P. (2011). *Hypnosis for chronic pain management*. New York: Oxford Press.
- Jensen, M.P., Mendoza, M.E., Ehde, D.M., Patterson, D.R., Molton, I.R., Dillworth, T.M., Gertz, K.J., Chan, J., Hakimian, S., Battalio, S.L, & Ciol, M.A. (2020). Effects of hypnosis, cognitive therapy, hypnotic cognitive therapy, and pain education in adults with chronic pain: a randomized clinical trial. *Pain*. Oct; 161(10): 2284-2298.
- Jensen MP & Patterson D (2014). Hypnotic approaches for chronic pain management: Clinical Implications of recent research findings. *American Psychologist* Feb-March, 2014 issue.
- Klocek, J. (2016). History of medical and psychological hypnosis. In G.R. Elkins (Ed.), *Handbook of medical and psychological hypnosis* (pp. 3-7). New York: Springer Publishing Company.
- Langlois, P., Perrochon, A., David, R., Rainville, P., Wood, C., Vanhaudenhuyse, A., Pageaux, B., Ounajim, A., Lavalliere, M., Debarnot, U., Luque-Moreno, C., Roulaud, M., Simoneau, M., Goudman, L., Moens, M., Rigoard, P., & Billot, M. (2022). Hypnosis to manage musculoskeletal

## Pain Control Hypnosis Research References

and neuropathic chronic pain: A systematic review and meta-analysis. *Neuroscience & Biobehavioral Reviews*. Volume 135, April 2022, 104591.

McKernan, LC, Finn, M., Patterson, DR, Williams, RM, & Jensen, MP (2020). Clinical hypnosis for chronic pain in outpatient integrative medicine: An implementation and training model. *Journal of Alternative and Complementary Medicine*. 26(2), 107-112.

Melzack, R. and Wall, P.D. (1965). Pain mechanisms: A new theory. *Science*, 150, 971-979.

Melzack, R. and Wall, P.D. (1982). *The Challenge of Pain*. New York: Basic Books.

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.

Patterson, D.R. (2010). *Clinical hypnosis for pain control*. Washington, DC: APA Books.

Patterson, D.R. (2023, in preparation). *Clinical hypnosis for pain control*. Washington, DC: APA Books.

Patterson, D.R., Jensen, M.P., & Montgomery, G.H. (2010). Hypnosis for pain control. In SJ Lynn, JW Rhue, & I Kirsch (Eds.), *Handbook of Clinical Hypnosis* (p. 521-550). Washington DC: APA Books.

Spiegel, H. & Spiegel, D. (2004). *Trance and treatment: Clinical uses of hypnosis*. Washington, D.C.: American Psychiatric Publishing.

Stolb, B, Molton, IR, Jensen, MP, & Patterson, DR (2009). The efficacy of hypnotic analgesia in adults: A review of the literature. *Contemporary Hypnosis: The Journal of the British Society of Experimental and Clinical Hypnosis*. 26(1), 24-39.

Thompson, T., Terhune, D., Oram, C., Sharangparni, J., Rouf, R., Solmi, M., Veronese, N., & Stubbs, B. (2019). The effectiveness of hypnosis for pain relief: A systematic review and meta-analysis of 85 controlled experimental trials. *Neuroscience & Biobehavioral Reviews*. 99 (10). <https://www.researchgate.net/publication/331185359>

Turk, D.C. and Flor, H. (1999). Chronic pain: A biobehavioral perspective. In R.J. Gatchel and D.C. Turk (Eds), *Psychosocial factors in pain: critical perspectives* (pp. 18-34). New York: Guilford Press.

Turk, D.C. & Gatchel, R.J. (2002). *Psychological Approaches to Pain Management: A Practitioner's Handbook* 2nd edition. New York: Guilford Press.

Williams, R.M., Day, MA, Ehde, DM, Turner, AP, Ciol, MA, Gertz, KJ, Patterson, DR, Hakimian, S, Suri, P., & Jensen, MP. (2022). Effects of hypnosis vs mindfulness meditation vs education on chronic pain intensity and secondary outcomes in veterans: a randomized clinical trial. *Pain*. 163(10):1905-1918.

## **Pain Control Hypnosis Research References**

Wolf, TG, Faerber, KA, Rummel, C, Halsband, U, Campus1, G. (2022). Functional changes in brain activity using hypnosis: A systematic review. *Brain Sciences*. Jan; 12(1): 108.

Zarren, J. & Eimer, B. (2002). *Brief cognitive hypnosis: Facilitating the change of dysfunctional behavior*. New York: Springer Publishing.