

# HYPNOSE BINNEN DE MEDISCHE PRAKTIJK BEPERKT LITERATUUROVERZICHT.

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Hypnose werd vaker bestudeerd dan men zou verwachten.

Een opzoeking in de database PubMed - National Library of Medicine met het woord “ Hypnosis “ levert op moment van dit schrijven ( september 2004) 10111 artikels op. Het zullen er ondertussen meer zijn. We hebben er ter info een aantal recentere publicaties uitgepikt, zowel klinische rapporten als overzichtsartikels. We willen absoluut benadrukken dat deze beperkte selectie geen volledig overzicht kan geven van de literatuur rond hypnose bij medische aandoeningen. Dat zou onmogelijk zijn. De hier weergegeven studies werden wel geselecteerd omwille van hun diversiteit en hun wetenschappelijke waarde. De nadruk ligt iets meer op de gerandomiseerde “ dubbelblinde “ studies wegens hun grootste wetenschappelijke overtuigingskracht maar bij gebrek daaraan, voor sommige indicaties, werden ook andere artikels opgenomen.

Enkel de recentere artikels aangaande medische aandoeningen werden geselecteerd.

## GENEESKUNDE ALGEMEEN

Pinell en Covino publiceerden een zeer uitgebreid kritisch overzicht van diverse studies voor uiteenlopende indicaties. De auteurs geven bovendien aan in welke mate studies rond hypnose beperkt zijn qua methodologie. Ze vertonen eerst en vooral een grote heterogeniteit in de gebruikte “hypnotische” suggesties ( bvb hypnotic-relaxation of hypnotic-guided imagery, ...) en talrijke variaties in de bepaling van de graad van hypnotiseerbaarheid. Bovendien werden diverse studies uitgevoerd met een beperkt aantal personen of werden ze niet gerandomiseerd. Ook het werkingsmechanisme van hypnose dient dringend verder bestudeerd te worden volgens deze auteurs.

Ook het gezaghebbende Britisch Medical Journal (BMJ) wijdde een overzichtsartikel aan hypnose en relaxatietechnieken. Het artikel geeft een overzicht van alle gerandomiseerde studies en concludeert dat voor hypnose vooral gunstig effect werd bewezen voor astma en irritable bowel syndroom. Hypnose blijkt efficiënt in de aanpak van angst, pijn, misselijkheid en braken bij kankerpatiënten.

We laten u tenslotte meegenieten een overzichtsartikel aangaande het gebruik van hypnose binnen het terrein van de urgentie geneeskunde.

Int J Clin Exp Hypn. 2000 Apr;48(2):170-94.

**Empirical findings on the use of hypnosis in medicine: a critical review.**

**Pinnell CM, Covino NA.**

Arizona School of Professional Psychology, USA.

Recent changes in health care have been characterized by an increased demand for empirically supported treatments in medicine. Presently, there is moderate support for the integration of hypnotic techniques in the treatment of a number of medical problems. This critical review of the research literature focuses on the empirical research on the effectiveness of hypnotic treatments as adjuncts to medical care for anxiety related to medical and dental procedures, asthma, dermatological diseases, gastrointestinal diseases, hemorrhagic disorders, nausea and emesis in oncology, and obstetrics/gynecology. Wider acceptance of hypnosis as an intervention to assist with medical care will require further research.

Publication type: review

BMJ. 1999 Nov 20;319(7221):1346-9.

**ABC of complementary medicine. Hypnosis and relaxation therapies.**

**Vickers A, Zollman C.**

Geen abstract

Emerg Med Clin North Am. 2000 May;18(2):327-38, x.

**The use of hypnosis in emergency medicine.**

**Peebles-Kleiger MJ.**

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Hypnosis can be a useful adjunct in the emergency department setting. Its efficacy in various clinical applications has been replicated in controlled studies. Application to burns, pain, pediatric procedures, surgery, psychiatric presentations (e.g., coma, somatoform disorder, anxiety, and posttraumatic stress), and obstetric situations (e.g., hyperemesis, labor, and delivery) are described. Negative effects are discussed.

Publication Types: Review

## CHIRURGISCHE INTERVENTIES

**Het pijnstillende en angstwerende effect van hypnose wordt geïllustreerd bij diverse medische ingrepen. Hypnose, toegevoegd aan locale anesthesie, verhoogt het comfort van de patiënten, werkt angstverminderend en pijnstillend en kan het gebruik van pijnstillers en angstverminderende medicaties doen afnemen.**

**Studies bespreken zowel de hypnotische aanpak bij algemene chirurgie als bij meer specifieke interventies zoals orthopedische handchirurgie, radiologische en gynaecologische interventies of ruggenmergprikken.**

**Het laatste geselecteerde artikel betreft het gebruik van hypnose ter verbetering wondheling bij borstoperaties.**

Pain. 1997 Dec;73(3):361-7.

**Psychological approaches during conscious sedation. Hypnosis versus stress reducing strategies: a prospective randomized study.**

**Faymonville ME, Mambourg PH, Joris J, Vrijens B, Fissette J, Albert A, Lamy M.**

Department of Anesthesia and Intensive Care Medicine, University Hospital of Liege, Belgium.

Stress reducing strategies are useful in patients undergoing surgery. Hypnosis is also known to alleviate acute and chronic pain. We therefore compared the effectiveness of these two

psychological approaches for reducing perioperative discomfort during conscious sedation for plastic

surgery. Sixty patients scheduled for elective plastic surgery under local anesthesia and intravenous sedation (midazolam and alfentanil upon request) were included in the study after providing informed consent. They were randomly allocated to either stress reducing strategies (control: CONT) or hypnosis (HYP) during the entire surgical procedure. Both techniques were performed by the same anesthesiologist (MEF). Patient behavior was noted during surgery by a psychologist, the patient noted anxiety, pain, perceived control before, during and after surgery, and postoperative nausea and vomiting (PONV). Patient satisfaction and surgical conditions were also recorded. Peri- and postoperative anxiety and pain were significantly lower in the HYP group. This reduction in anxiety and pain were achieved despite a significant reduction in intraoperative requirements for midazolam and alfentanil in the HYP group (alfentanil: 8.7 +/- 0.9 microg kg(-1)/h(-1) vs. 19.4 +/- 2 microg kg(-1)/h(-1), P < 0.001; midazolam: 0.04 +/- 0.003 mg kg(-1)/h(-1) vs. 0.09 +/- 0.01 mg kg(-1)/h(-1), P < 0.001). Patients in the HYP group reported an impression of more intraoperative control than those in the CONT group (P < 0.01). PONV were significantly reduced in the HYP group (6.5% vs. 30.8%, P < 0.001). Surgical conditions were better in the HYP group. Less signs of patient discomfort and pain were observed by the psychologist in the HYP group (P < 0.001). Vital signs were significantly more stable in the HYP group. Patient satisfaction score was significantly higher in the HYP group (P < 0.004). **This study suggests that hypnosis provides better perioperative pain and anxiety relief, allows for significant reductions in alfentanil and midazolam requirements, and improves patient satisfaction and surgical conditions as compared with conventional stress reducing strategies support in patients receiving conscious sedation for plastic surgery.**

Publication Types: Randomized Controlled Trial

Int J Clin Exp Hypn. 1999 Apr;47(2):144-61.

**Medical hypnosis and orthopedic hand surgery: pain perception, postoperative recovery, and therapeutic comfort.**

**Mauer MH, Burnett KF, Ouellette EA, Ironson GH, Dandes HM.**

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Orthopedic hand-surgery patients experience severe pain postoperatively, yet they must engage in painful exercises and wound care shortly after surgery; poor patient involvement may result in loss of function and disfigurement. This study tested a hypnosis intervention designed to reduce pain perception, enhance postsurgical recovery, and facilitate rehabilitation. Using a quasi-experimental research design, 60 hand-surgery patients received either usual treatment or usual treatment plus hypnosis. After controlling for gender, race, and pretreatment scores, the hypnosis group showed significant decreases in measures of perceived pain intensity (PPI), perceived pain affect (PPA), and state anxiety. In addition, physician's ratings of progress were significantly higher for experimental subjects than for controls, and the experimental group had significantly fewer medical complications. **These results suggest that a brief hypnosis intervention may reduce orthopedic hand-surgery patients' postsurgical PPI, PPA, and anxiety; decrease comorbidity; and enhance postsurgical recovery and rehabilitation. However, true experimental research designs with other types of controls must be employed to determine more fully the contribution of hypnosis to improved outcome.**

Publication Types: Clinical Trial

Lancet. 2000 Apr 29;355(9214):1486-90.

**Adjunctive non-pharmacological analgesia for invasive medical procedures: a randomised trial.**

**Lang EV, Benotsch EG, Fick LJ, Lutgendorf S, Berbaum ML, Berbaum KS, Logan H, Spiegel D.**

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BACKGROUND: Non-pharmacological behavioural adjuncts have been suggested as efficient safe means in reducing discomfort and adverse effects during medical procedures. We tested this assumption for patients undergoing percutaneous vascular and renal procedures in a prospective, randomised, single-centre study. METHODS: 241 patients were randomised to receive intraoperatively standard care (n=79), structured attention (n=80), or self-hypnotic relaxation (n=82). All had access to patient-controlled intravenous analgesia with fentanyl and midazolam. Patients rated their pain and anxiety on 0-10 scales before, every 15 min during and after the procedures. FINDINGS: Pain increased linearly with procedure time in the standard group (slope

0.09 in pain score/15 min,  $p < 0.0001$ ), and the attention group (slope 0.04/15 min;  $p = 0.0425$ ), but remained flat in the hypnosis group. Anxiety decreased over time in all three groups with slopes of -0.04 (standard), -0.07 (attention), and -0.11 (hypnosis). Drug use in the standard group (1.9 units) was significantly higher than in the attention and hypnosis groups (0.8 and 0.9 units, respectively). One hypnosis patient became haemodynamically unstable compared with ten attention patients ( $p = 0.0041$ ), and 12 standard patients ( $p = 0.0009$ ). Procedure times were significantly shorter in the hypnosis group (61 min) than in the standard group (78 min,  $p = 0.0016$ ) with procedure duration of the attention group in between (67 min). INTERPRETATION: **Structured attention and self-hypnotic relaxation proved beneficial during invasive medical procedures. Hypnosis had more pronounced effects on pain and anxiety reduction, and is superior, in that it also improves haemodynamic stability.**

Int J Clin Exp Hypn. 2002 Jan;50(1):17-32.

**Brief presurgery hypnosis reduces distress and pain in excisional breast biopsy patients.**

**Montgomery GH, Weltz CR, Seltz M, Bovbjerg DH.**

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Each year, hundreds of thousands of women undergo excisional breast biopsies for definitive diagnosis. Not only do these patients experience pain associated with the procedure, but they also endure distress associated with the threat of cancer. Hypnosis has been demonstrated as effective for controlling patients' pain in other surgical settings, but breast surgery patients have received little attention. To determine the impact of brief presurgical hypnosis on these patients' postsurgery pain and distress and to explore possible mediating mechanisms of these effects, 20 excisional breast biopsy patients were randomly assigned to a hypnosis or control group (standard care). **Hypnosis reduced postsurgery pain and distress. Initial evidence suggested that the effects of hypnosis were mediated by presurgery expectations.**

Publication Types: Randomized Controlled Trial

Am J Clin Hypn. 2003 Apr;45(4):333-51.

**Can medical hypnosis accelerate post-surgical wound healing? Results of a clinical trial.**

**Ginandes C, Brooks P, Sando W, Jones C, Aker J.**

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Although medical hypnosis has a long history of myriad functional applications (pain reduction, procedural preparation etc.), it has been little tested for site-specific effects on physical healing per se. In this randomized controlled trial, we compared the relative efficacy of an adjunctive hypnotic intervention, supportive attention, and usual care only on early post-surgical wound healing.

Eighteen healthy women presenting consecutively for medically recommended reduction mammoplasty at an ambulatory surgery practice underwent the same surgical protocol and postoperative care following preoperative randomization ( $n = 6$  each) to one of the three treatment conditions: usual care, 8 adjunctive supportive attention sessions, or 8 adjunctive hypnosis sessions targeting accelerated wound healing. The primary outcome data of interest were objective, observational measures of incision healing made at 1.7 weeks postoperatively by medical staff blind to the participants' group assignments. Data included clinical exams and digitized photographs that were scored using a wound assessment inventory (WAI). Secondary outcome measures included the participants' subjectively rated pain, perceived incision healing (VAS Scales), and baseline and post-surgical functional health status (SF-36). Analysis of variance showed the hypnosis group's objectively observed wound healing to be significantly greater than the other two groups',  $p < .001$ , through 7 postoperative weeks; standard care controls showed the smallest degree of healing. In addition, at both the 1 and 7 week post-surgical observation intervals, one-way analyses showed the hypnosis group to be significantly more healed than the usual care controls,  $p < 0.02$ . The mean scores of the subjective assessments of postoperative pain, incision healing and functional recovery trended similarly. **Results of this preliminary trial indicate that use of a targeted hypnotic intervention can accelerate postoperative wound healing and suggest that further tests of using hypnosis to augment physical healing are warranted.**

Publication Types: Randomized Controlled Trial

## PIJN

**Hypnose is werkzaam ter vermindering van zowel acute als chronische pijn. Er bestaan veel gevalsbeschrijvingen in de literatuur. We selecteerden enkele specifiekere indicaties: hoofdpijn, fantoompijn, artrose pijn en tenslotte pijncontrole bij brandwonden.**

### **HOOFDPIJN: een overzichtsartikel**

J Pediatr Psychol. 1999 Apr;24(2):91-109.

**Empirically supported treatments in pediatric psychology: recurrent pediatric headache.**

**Holden EW, Deichmann MM, Levy JD.**

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**OBJECTIVE:** To review the empirical research examining behavioral treatments for recurrent pediatric headache. **METHODS:** Thirty-one investigations published after 1980 were reviewed using predetermined criteria to evaluate the adequacy of research methodologies. A modification of criteria proposed for evaluating the efficacy of psychological interventions for adults (Task Force on Promotion and Dissemination of Psychological Procedures, 1995) was used to evaluate the adequacy of evidence available for individual intervention strategies. **RESULTS:** Sufficient evidence exists to conclude that relaxation/self-hypnosis is a well-established and efficacious treatment for recurrent headache. Furthermore, enough evidence exists to conclude that thermal biofeedback alone is a probably efficacious treatment. Other promising interventions have been tested that combine relaxation and biofeedback or integrate other cognitive-behavioral treatment approaches, but are limited by inadequate research methodologies. **CONCLUSIONS:** We discuss the importance of developmentally based conceptual models and the impact of diagnostic heterogeneity and offer specific recommendations for future intervention research in the area of recurrent pediatric headache.

Publication Types: Review Literature

### **FANTOOMPIJN: een overzichtsartikel**

Clin Rehabil. 2002 Jun;16(4):368-77.

**Hypnotic imagery as a treatment for phantom limb pain: two case reports and a review.**

**Oakley DA, Whitman LG, Halligan PW.**

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**OBJECTIVE:** To provide a theoretical background, to review existing literature and to present new case material relevant to the treatment of phantom limb pain using hypnotic imagery. **METHOD:** This paper presents two new case reports involving the use of hypnotic imagery procedures in the alleviation of phantom limb pain and reviews 10 previous clinical studies which have involved a similar approach. The earlier studies were identified by electronic and manual searches of the relevant literature. **RESULTS:** Two main treatment strategies can be identified: (1) ipsative/imagery-based approaches and (2) movement/imagery-based approaches. A common finding is the need to treat the phantom limb as a 'real' body part, to accept its existence as a valid mental representation and to avoid treating the amputation stump as the sole source of the phantom pain sensations. **CONCLUSION:** Hypnotic procedures appear to be a useful adjunct to established strategies for the treatment of phantom limb pain and would repay further, more systematic, investigation. Suggestions are provided as to the factors which should be considered for a more systematic research programme.

Publication Types: Review

**ARTHROSE EN RHEUMA: Hypnose blijkt niet alleen de pijnsensatie bij artrose en reuma patiënten te verminderen maar kan bovendien de inname van medicatie**

**doen afnemen en een gunstig effect hebben op de biologische parameters. Jammer genoeg wordt er in de medische wereld amper of geen gebruik gemaakt van deze aanpak.**

Eur J Pain. 2002;6(1):1-16.

**Differential effectiveness of psychological interventions for reducing osteoarthritis pain: a comparison of Erikson [correction of Erickson] hypnosis and Jacobson relaxation.**

**Gay MC, Philippot P, Luminet O.**

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The present study investigates the effectiveness of Erikson hypnosis and Jacobson relaxation for the reduction of osteoarthritis pain. Participants reporting pain from hip or knee osteoarthritis were randomly assigned to one of the following conditions: (a) hypnosis (i.e. standardized eight-session hypnosis treatment); (b) relaxation (i.e. standardized eight sessions of Jacobson's relaxation treatment); (c) control (i.e. waiting list). **Overall, results show that the two experimental groups had a lower level of subjective pain than the control group and that the level of subjective pain decreased with time. An interaction effect between group treatment and time measurement was also observed in which beneficial effects of treatment appeared more rapidly for the hypnosis group. Results also show that hypnosis and relaxation are effective in reducing the amount of analgesic medication taken by participants.**

Finally, the present results suggest that individual differences in imagery moderate the effect of the psychological treatment at the 6 month follow-up but not at previous times of measurement (i.e. after 4 weeks of treatment, after 8 weeks of treatment and at the 3 month follow-up). The results are interpreted in terms of psychological processes underlying hypnosis, and their implications for the psychological treatment of pain are discussed. Copyright 2002 European Federation of Chapters of the Association for the Study of Pain

Publication Types: Randomized Controlled Trial

Psychology and Health, 14 (6), 1089-1104..

**The effect of hypnosis therapy on the symptoms and disease activity in rheumatoid arthritis .**

**Horton-Hausknecht J.; Mitzdorf U.; Melchart D. (2000).**

In this study we aimed to assess the effectiveness of clinical hypnosis on the symptoms and disease activity of rheumatoid arthritis (RA). 66 RA patients participated in a controlled group design. 26 patients learnt the hypnosis intervention, 20 patients were in a relaxation control group, and 20 patients were in a waiting-list control group. During hypnosis , patients developed individual visual imagery aimed at reducing the autoimmune activity underlying the RA and at reducing the symptoms of joint pain, swelling, and stiffness. Subjective assessments of symptom severity and body and joint function, using standardized questionnaires and visual analogue scales, were obtained. **Objective measures of disease activity via multiple blood samples during the therapy period and at the two follow-ups were also taken. These measurements were of erythrocyte sedimentation rate, C-reactive protein, hemoglobin, and leukocyte total numbers. Results indicate that the hypnosis therapy produced more significant improvements in both the subjective and objective measurements, above relaxation and medication.** Improvements were also found to be of clinical significance and became even more significant when patients practiced the hypnosis regularly during the follow-up periods.

**BRANDWONDEN: Het gebruik van hypnotische technieken ter pijncontrole voor de pijnlijke, dagelijkse verbandwisselingen bij brandwonden werd gedocumenteerd in talrijke studies. We geven U een gerandomiseerde studie afkomstig van ons eigen Belgisch brandwondencentrum en een eerder verschenen pilootstudie. Deze studies tonen aan dat hypnose een duidelijke vermindering geeft van angst en pijn.**

Burns. 2001 Dec;27(8):793-9.

**Psychological approaches during dressing changes of burned patients: a prospective randomised study comparing hypnosis against stress reducing strategy.**

**Frenay MC, Faymonville ME, Devlieger S, Albert A, Vanderkelen A.**

Burn Centre, Military Hospital Queen Astrid, Rue Bruyn, 1, 1120, Brussels, Belgium.

A prospective study was designed to compare two psychological support interventions in controlling peri-dressing change pain and anxiety in severely burned patients. Thirty patients with a total burned surface area of 10-25%, requiring a hospital stay of at least 14 days, were randomised to receive either hypnosis or stress reducing strategies (SRS) adjunctively to routine intramuscular pre-dressing change analgesia and anxiolytic drugs. Visual analogue scale (VAS) scores for anxiety, pain, pain control and satisfaction were recorded at 2-day intervals throughout the 14-day study period, before, during and after dressing changes. The psychological assistance was given on days 8 and 10 after hospital admission. The comparison of the two treatment groups indicated that VAS anxiety scores were significantly decreased before and during dressing changes when the hypnotic technique was used instead of SRS. No difference was observed for pain, pain control and satisfaction, although VAS scores were always better in the hypnosis group. **The study also showed that, overall, psychological support interventions reduced pain and increased patient satisfaction. These results confirm the potential benefits of psychological assistance during dressing changes in burned patients.**

Publication Types: Randomized Controlled Trial

Burns Including Thermal Injuries, 14, 399-404.

**Hypnosis and pain in patients with severe burns: A pilot study.**

**Van der Does, A. J.; Van Dyck, R.; Spijker, R. E. (1988).**

**ABSTRACT:** Presents a pilot study on the effectiveness of hypnosis in the control of pain during dressing changes of burn patients. Eight patients were treated, and all evaluated the interventions as beneficial. The treatment of four patients was more closely analyzed by obtaining pain and anxiety ratings daily. Results show a 50%-64% decrease in reported pain level for three patients and a 52% increase of pain for one patient. The mean decrease for these four patients was 30% (for overall as well as worst pain during dressing changes). A 30% reduction of anxiety level and a modest reduction of medication use were achieved concurrently. **It is concluded that hypnosis is of potential value during dressing changes of burn patients.** Comparison of global evaluations and daily pain ratings shows that systematic research in some cases leads to conclusions opposite from clinical observations. Follow-up recommendations for future studies are given.

## PEDIATRIE

**Volgende artikels betreffen enerzijds de aanpak van angst en pijn bij chirurgische interventies (mergpuncties, fractuur) specifiek bij kinderen en jongeren. Tevens geven we een rapport over zelfhypnose bij buikpijn.**

**Een artikel aangaande hypnose gebruik bij ademhalingsproblemen werd ondergebracht bij "pneumologie".**

Int J Clin Exp Hypn. 2003 Jan;51(1):4-28.

**Clinical hypnosis in the alleviation of procedure-related pain in pediatric oncology patients.**

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This prospective controlled trial investigated the efficacy of a manual-based clinical hypnosis intervention in alleviating pain in 80 pediatric cancer patients (6-16 years of age) undergoing regular lumbar punctures. Patients were randomly assigned to 1 of 4 groups: direct hypnosis with standard medical treatment, indirect hypnosis with standard medical treatment, attention control with standard medical treatment, and standard medical treatment alone. Patients in the hypnosis groups reported less pain and anxiety and were rated as demonstrating less behavioral distress than those

in the control groups. Direct and indirect suggestions were equally effective, and the level of hypnotizability was significantly associated with treatment benefit in the hypnosis groups. Therapeutic benefit degraded when patients were switched to self-hypnosis. **The study indicates that hypnosis is effective in preparing pediatric oncology patients for lumbar puncture, but the presence of the therapist may be critical.**

Publication Types: Randomized Controlled Trial

J Emerg Med. 1999 Jan-Feb;17(1):53-6.

**Hypnosis for pediatric fracture reduction.**

**Iserson KV.**

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Hypnosis can diminish pain and anxiety for many emergency patients during examinations and procedures. While hypnosis has been used for millennia and was demonstrated to be of use in clinical medicine more than a century ago, modern physicians have been reluctant to adopt this technique in clinical practice. This article describes four children with angulated forearm fractures who had no possible access to other forms of analgesia during reduction, and in whom hypnosis was used successfully. A simple method for hypnotic induction is described.

Clin Pediatr (Phila). 2001 Aug;40(8):447-51.

**Self-hypnosis for the treatment of functional abdominal pain in childhood.**

**Anbar RD.**

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Functional abdominal pain, defined as recurrent abdominal pain in the absence of an identifiable physiologic cause, can respond to psychological intervention in appropriate patients. In this patient series, functional abdominal pain of 4 of 5 pediatric patients resolved within 3 weeks after a single session of instruction in self-hypnosis. The potential impact of widespread application of such hypnotherapy may be large, because abdominal pain is thought to be the most common recurrent physical symptom attributable to psychological factors among children and adolescents.

## DIVERSE MEDISCHE INDICATIES

### CARDIOLOGIE

**Er is weinig terug te vinden in de recentere literatuur. Zie hier wel een boeiende gerandomiseerde studie rond hartchirurgie.**

J Altern Complement Med. 1995 Fall;1(3):285-90.

**The effects of self-hypnosis on quality of life following coronary artery bypass surgery: preliminary results of a prospective, randomized trial.**

**Ashton RC Jr, Whitworth GC, Seldomridge JA, Shapiro PA, Michler RE, Smith CR, Rose EA, Fisher S, Oz MC.**

Department of Surgery, College of Physicians & Surgeons, Columbia University, New York, NY, USA.

The effects of complementary techniques and alternative medicine on allopathic therapies is generating much interest and research. To properly evaluate these techniques, well controlled studies are needed to corroborate the findings espoused by individuals practicing complementary medicine therapies. To this end, we evaluated the role of one of these therapies, self-hypnosis relaxation techniques, in a prospective, randomized trial to study its effects on quality of life after coronary artery bypass surgery. Subjects were randomized to a control group or a study group. Study group patients were taught self-hypnosis relaxation techniques the night prior to surgery. The control group received no such treatment. Patients then underwent routine cardiac management and



care. The main endpoint of our study was quality of life, assessed by the Profile of Moods Scale. Results demonstrated that patients undergoing self-hypnosis the night prior to coronary artery bypass surgery were significantly more relaxed than the control group ( $p = 0.0317$ ). Trends toward improvement were also noted in depression, anger, and fatigue. **This study demonstrates the beneficial effects of self-hypnosis relaxation techniques on coronary surgery.** This study also identifies endpoints and a study design that can be used to assess complementary medicine therapies. Results of this preliminary investigation are encouraging and demonstrate a need for further well-controlled studies.

Publication Types: Randomized Controlled Trial

## DERMATOLOGIE

**Het beste overzichtsartikel is dit van Shenefelt. Het beschrijft de resultaten van een Medline search vanaf januari 1966 tot december 1998 rondom hypnose bij huidziekten. De auteur beschrijft de verschillende typen studies (gevalsebesprekingen, gerandomiseerde studies ...) voor alle mogelijke dermatologische indicaties waarbij ooit hypnose gebruikt werd en dat zijn er blijkbaar heel veel : acné, stress gebonden haarverlies, eczema, puisten op het lichaam, herpes, pijn na zona, brandende tong, overvloedig zweten, jeuk, psoriasis, netelroos, wratten en vitiligo.**

**Verdere informatie rond het gebruik van hypnose in de dermatologie kan U vinden in een overzichtsartikel opgenomen op deze website.**

Arch Dermatol. 2000 Mar;136(3):393-9.

**Hypnosis in dermatology.**

**Shenefelt PD.**

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**BACKGROUND:** Hypnosis is an alternative or complementary therapy that has been used since ancient times to treat medical and dermatologic problems. **OBJECTIVE:** To describe the various uses for hypnosis as an alternative or complementary therapy in dermatologic practice. **METHODS:** A MEDLINE search was conducted from January 1966 through December 1998 on key words related to hypnosis and skin disorders. **RESULTS:** A wide spectrum of dermatologic disorders may be improved or cured using hypnosis as an alternative or complementary therapy, including acne excoriee, alopecia areata, atopic dermatitis, congenital ichthyosiform erythroderma, dyshidrotic dermatitis, erythromelalgia, furuncles, glossodynia, herpes simplex, hyperhidrosis, ichthyosis vulgaris, lichen planus, neurodermatitis, nummular dermatitis, postherpetic neuralgia, pruritus, psoriasis, rosacea, trichotillomania, urticaria, verruca vulgaris, and vitiligo. **CONCLUSION:** **Appropriately trained clinicians may successfully use hypnosis in selected patients as alternative or complementary therapy for many dermatologic disorders.**

Publication Types: Review

## PNEUMOLOGIE of LONGAANDOENINGEN

**We selecteerden een klinische studie rond de aanpak van ademhalingsproblemen bij kinderen en jongeren en een gerandomiseerde studie betreft astma.**

Pediatrics. 2001 Feb;107(2):E21.

**Self-hypnosis for management of chronic dyspnea in pediatric patients.**

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**INTRODUCTION:** Hypnotherapy can be useful in the management of anxiety, discomfort, and

psychosomatic symptoms, all of which may contribute to a complaint of dyspnea. Therefore, instruction in self-hypnosis was offered to 17 children and adolescents with chronic dyspnea, which had not resolved despite medical therapy, and who were documented to have normal lung function at rest. This report documents the result of this intervention. METHODS: A retrospective chart review identified all patients followed by a single pediatric pulmonologist (R.D.A.), with a chief complaint of chronic dyspnea from April 1998 through December 1999. These patients had been evaluated and treated for medical diseases according to their history, physical examination, and laboratory investigations. The pulmonologist offered to teach self-hypnosis to all of these patients, who comprise the cohort in this report. Chronic dyspnea was defined as recurrent difficulty breathing or shortness of breath at rest or with exertion, which had existed for at least 1 month in patients who had not suffered within a month from an acute pulmonary illness. The pulmonologist was trained in hypnosis through his attendance at three 20-hour workshops. Hypnosis was taught to individual patients in 1 or two 15- to 45-minute sessions. Patients were taught hypnotic self-induction techniques and imagery to achieve relaxation. Additionally, imagery relating to dyspnea was developed by coaching patients to change their imagined lung appearance from a dyspneic to a healthy state. Patients were encouraged to practice self-hypnosis regularly and to use lung imagery to eliminate dyspnea if it occurred. RESULTS: Seventeen patients (13 males and 4 females) with chronic dyspnea were documented to have normal pulmonary function at rest. Their mean age was 13.4 years (range: 8-18 years). Twelve of the 17 previously were diagnosed with other conditions, such as allergies, asthma, and gastroesophageal reflux. Fifteen of the 17 manifested at least 1 other symptom associated with their dyspnea, including an anxious appearance (4 patients); chest tightness or pain (5); cough (4); wheeze (3); difficulty with inspiration (2); hyperventilation (1); inspiratory noise, such as stridor, gasping, rasping, or squeak (8); dizziness (1); feeling something is stuck in the throat (2); parasthesias (4); and tachycardia (3). Of the 17 patients, 2 complained of dyspnea at rest only, 13 complained of dyspnea with activity only, and 2 complained of dyspnea both at rest and with activity. Nine patients reported that they frequently needed to discontinue their physical activity because of dyspnea. The mean duration of their dyspnea before learning self-hypnosis was 2 years (range: 1 month to 5 years). The dyspnea was of <6 months duration for 4 of the patients. For 9 of the 17 patients a potential psychosocial association with their dyspnea was identified: 3 developed symptoms at school only; 2 with exercise during competitive races only; 3 after a major disagreement between their parents; and 1 developed symptoms each time his family moved to a new neighborhood. Before presentation, 7 of the 17 patients received chronic inhaled antiinflammatory therapy, and 3 were using inhaled albuterol, as needed. All 17 patients had normal physical examinations, with the exception of healed scars on the chest and abdomen of 1 patient, a repaired cleft palate in 1 patient, and rhinitis in another. Four of the 17 underwent pulmonary function testing before and after exercise, 6 had chest radiographs, and 3 had electrocardiograms. All of these tests were normal. A patient with a history of psychogenic cough declined to learn self-hypnosis. Thirteen of the remaining 16 patients were taught to use self-hypnosis in 1 session. A second session was provided to 3 patients within 2 months. **Thirteen of the 16 patients reported their dyspnea and any associated symptoms had resolved within 1 month of their final hypnosis instruction session. Eleven believed that resolution of their dyspnea was attributable to hypnosis, because their symptoms cleared immediately after they received hypnosis instruction (5 patients) or with its regular use (6). Two did not attribute resolution of dyspnea to hypnosis because they did not use it at home. The remaining 3 reported that their dyspnea had improved.** Patients were followed for a mean 9 months (range: 2-15 months) after their final hypnosis session. Ten of the 16 regularly used self-hypnosis at home for at least 1 month after the final hypnosis session. There was no recurrence of dyspnea, associated symptoms, or onset of new symptoms in patients in whom the dyspnea resolved. Under supervision of the pediatric pulmonologist, 2 of 7 patients discontinued their chronic antiinflammatory therapy when they became asymptomatic after hypnosis. Subsequently, their pulmonary function remained normal. DISCUSSION:

(ABSTRACT TRUNCATED)

Publication Types: Clinical Trial

Br Med J (Clin Res Ed). 1986 Nov 1;293(6555):1129-32.

**Improvement in bronchial hyper-responsiveness in patients with moderate asthma after treatment with a hypnotic technique: a randomised controlled trial.**

**Ewer TC, Stewart DE.**

A prospective, randomised, single blind, and controlled trial of a hypnotic technique was undertaken in 39 adults with mild to moderate asthma graded for low and high susceptibility to hypnosis. After a six week course of hypnotherapy 12 patients with a high susceptibility score showed a 74.9% improvement (p less than 0.01) in the degree of bronchial hyper-responsiveness to a standardised methacholine challenge test. Daily home recordings of symptoms improved by 41% (p less than 0.01), peak expiratory flow rates improved by 5.5% (p less than 0.01), and use of bronchodilators decreased by 26.2% (p less than 0.05). The improvement in bronchial hyper-reactivity occurred without a change in subjective appreciation of the degree of bronchoconstriction. A control group 17 patients and 10 patients undergoing treatment with low susceptibility to hypnosis had no change in either bronchial hyper-responsiveness or any of the symptoms recorded at home. **This study shows the efficacy of a hypnotic technique in adult asthmatics who are moderately to highly susceptible to hypnosis.**

Publication Types: Randomized Controlled Trial

## GASTRO ENTEROLOGIE

**De meeste rapporten handelen over “ spastisch colon “, het actueel genoemde “ irritable bowel syndroom”. Hypnose is niet enkel werkzaam op de darmklachten maar ook op een aantal psychische parameters. We tonen u een overzichtartikel, een gerandomiseerde studie en een longterm follow –up studie.**

Eur J Gastroenterol Hepatol. 1996 Jun;8(6):525-9.

**Use of hypnotherapy in gastrointestinal disorders.**

**Francis CY, Houghton LA.**

Department of Medicine, University Hospital of South Manchester, UK.

Medical history is full of anecdotal reports on the use of hypnosis in the treatment of gastrointestinal and other disorders. Unfortunately, much of the work published to date consists mainly of short case reports or involves small numbers of patients. They have, however, all broadly given the same message: that patients symptoms improve and they cope better with their condition after hypnotherapy. **More recently, controlled trials have shown that patients with severe refractory irritable bowel syndrome or relapsing duodenal ulcer disease respond well to hypnotherapy.** This article aims to give an overview of the areas in gastroenterology where hypnotherapy has been applied, discussing in particular what progress has been made in the area of irritable bowel syndrome.

Publication Types: Review

Dig Dis Sci. 2002 Nov;47(11):2605-14.

**Hypnosis treatment for severe irritable bowel syndrome: investigation of mechanism and effects on symptoms.**

**Palsson OS, Turner MJ, Johnson DA, Burnelt CK, Whitehead WE.**

University of North Carolina at Chapel Hill, Chapel Hill, North Carolina 27599-7080 USA.

Hypnosis improves irritable bowel syndrome (IBS), but the mechanism is unknown. Possible physiological and psychological mechanisms were investigated in two studies. Patients with severe irritable bowel syndrome received seven biweekly hypnosis sessions and used hypnosis audiotapes at home. Rectal pain thresholds and smooth muscle tone were measured with a barostat before and after treatment in 18 patients (study I), and treatment changes in heart rate, blood pressure, skin conductance, finger temperature, and forehead electromyographic activity were assessed in 24 patients (study II). Somatization, anxiety, and depression were also measured. All central IBS symptoms improved substantially from treatment in both studies. Rectal pain thresholds, rectal smooth muscle tone, and autonomic functioning (except sweat gland reactivity) were unaffected by hypnosis treatment. However, somatization and psychological distress showed large decreases. In **conclusion, hypnosis improves IBS symptoms through reductions in psychological distress and somatization.** Improvements were unrelated to changes in the physiological parameters measured.

Randomized Controlled Trial

Gut. 2003 Nov;52(11):1623-9.

**Long term benefits of hypnotherapy for irritable bowel syndrome.**

**Gonsalkorale WM, Miller V, Afzal A, Whorwell PJ.**

Department of Medicine, University Hospital of South Manchester, Manchester, UK.

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**BACKGROUND AND AIMS:** There is now good evidence from several sources that hypnotherapy can relieve the symptoms of irritable bowel syndrome in the short term. However, there is no long term data on its benefits and this information is essential before the technique can be widely recommended. This study aimed to answer this question. **PATIENTS AND METHODS:** 204 patients prospectively completed questionnaires scoring symptoms, quality of life, anxiety, and depression before, immediately after, and up to six years following hypnotherapy. All subjects also subjectively assessed the effects of hypnotherapy retrospectively in order to define their "responder status". **RESULTS:** 71% of patients initially responded to therapy. Of these, 81% maintained their improvement over time while the majority of the remaining 19% claimed that deterioration of symptoms had only been slight. With respect to symptom scores, all items at follow up were significantly improved on pre-hypnotherapy levels ( $p < 0.001$ ) and showed little change from post-hypnotherapy values. There were no significant differences in the symptom scores between patients assessed at 1, 2, 3, 4, or 5+ years following treatment. Quality of life and anxiety or depression scores were similarly still significantly improved at follow up ( $p < 0.001$ ) but did show some deterioration. Patients also reported a reduction in consultation rates and medication use following the completion of hypnotherapy. **CONCLUSION: This study demonstrates that the beneficial effects of hypnotherapy appear to last at least five years. Thus it is a viable therapeutic option for the treatment of irritable bowel syndrome.**

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## GYNECOLOGIE

**Indicaties voor het gebruik van hypnose zijn divers: seksuele stoornissen, urineverlies, chronische onderbuikpijn, zwangerschapsbegeleiding en bevallingen. We geven een algemeen overzichtsartikel, een meta-analyse van studies rond bevallingsarbeid afkomstig van de gerenommeerde Cochrane database ( de groep die nagaat voor welke aanpak evidence-based medicine criteria gelden) en tenslotte een protocolstudie rond bevallingsarbeid.**

Birth. 1995 Mar;22(1):37-42.

**Hypnosis in reproductive health care: a review and case reports.**

**Baram DA.**

Hypnosis has many applications in the field of reproductive health care. This paper describes its use in the treatment of sexual dysfunction, urinary incontinence, chronic pelvic pain, hyperemesis gravidarum, and pain relief in labor and delivery. Four case reports are used for illustration. Misconceptions about the risks and benefits of hypnosis are discussed. Information about training for clinicians in hypnosis is described.

Publication Types: Review

Cochrane Database Syst Rev. 2003;(2):CD003521.

**Complementary and alternative therapies for pain management in labour.**

**Smith CA, Collins CT, Cyna AM, Crowther CA.**

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**BACKGROUND:** Many women would like to avoid pharmacological or invasive methods of pain management in labour and this may contribute towards the popularity of complementary methods of pain management. This review examined currently available evidence supporting the use of alternative and complementary therapies for pain management in labour. **OBJECTIVES:** To examine

the effectiveness of complementary and alternative therapies for pain management in labour on maternal and perinatal morbidity. SEARCH STRATEGY: We searched the Cochrane Pregnancy and Childbirth Group trials register (July 2002), the Cochrane Controlled Trials Register (The Cochrane Library Issue 2, 2002), MEDLINE (1966 to July 2002), EMBASE (1980 to July 2002) and CINAHL (1980 to July 2002). SELECTION CRITERIA: The inclusion criteria included published and unpublished randomised controlled trials comparing complementary and alternative therapies with placebo, no treatment or pharmacological forms of pain management in labour. All women whether primiparous or multiparous, and in spontaneous or induced labour, in the first and second stage of labour were included. DATA COLLECTION AND ANALYSIS: Meta-analysis was performed using relative risks for dichotomous outcomes and weighted mean differences for continuous outcomes. The outcome measures were maternal satisfaction, use of pharmacological pain relief and maternal and neonatal adverse outcomes. MAIN RESULTS: Seven trials involving 366 women and using different modalities of pain management were included in this review. The trials included one involving acupuncture (n = 100), one involving audio-analgesia (n = 25), one involving aromatherapy (n = 22), three trials of hypnosis (n = 189) and one trial of music (n = 30). The trial of acupuncture decreased the need for pain relief (relative risk (RR) 0.56, 95% confidence interval (CI) 0.39 to 0.81). Women receiving hypnosis were more satisfied with their pain management in labour compared with controls (RR 2.33, 95% CI 1.55 to 4.71). No differences were seen for women receiving aromatherapy, music or audio analgesia. REVIEWER'S CONCLUSIONS: **Acupuncture and hypnosis may be beneficial for the management of pain during labour. However, few complementary therapies have been subjected to proper scientific study and the number of women studied is small.**  
Publication Types: Review

American Journal of Clinical Hypnosis, 1998, 40 (4), 273-283.

**Childbirth preparation through hypnosis: The hypnoreflexogenous protocol.**  
Schauble, Paul G.; Werner, William E. F.; Rai, Surekha H.; Martin, Alice.

ABSTRACT: A verbatim protocol for the "hypnoreflexogenous" method of preparation for childbirth is presented wherein the patient is taught to enter a hypnotic state and then prepared for labor and delivery. The method provides a "conditioned reflex" effect conducive to a positive outcome for labor and delivery by enhancing the patient's sense of readiness and control. **Previous applications of the method demonstrate patients have fewer complications, higher frequency of normal and full-term deliveries, and more positive postpartum adjustment.** The benefit and ultimate cost effectiveness of the method are discussed.

## NEUROLOGIE

**Ook bij een beperkt aantal neurologische indicaties werd hypnose gebruikt. We kunnen U echter geen gerandomiseerde studies geven maar enkel gevalsbeschrijvingen. DeBenedettis bespreekt de evolutie van 4 patiënten met spastische torticollis waarbij hypnose gebruikt werd en geeft een literatuuroverzicht aangaande deze aandoening. Ook aangaande multiple sclerose vonden we enkele gevalsbesprekingen.**

DeBenedettis, Giuseppe De.

**Hypnosis and spasmodic torticollis -- report of four cases: A brief communication.**  
International Journal of Clinical and Experimental Hypnosis, 1996, 44 (4), 292-306.

ABSTRACT: Dystonia and particularly spasmodic torticollis are neuromuscular disorders that are extremely resistant to most therapies (physical, medical, or surgical). Torticollis is a unilateral spasm of the neck muscles, particularly of the sternocleidomastoid, that produces violent, tonic turning of the head to one side. The etiology remains uncertain, although the role of psychogenic

torticollis treated successfully with hypnosis. In all four cases, psychogenic causes were involved. Postural hypnosis (i.e., hypnosis in the standing position) was employed to counteract and minimize muscle spasms due to postural reflexes. A hypnobehavioral approach was adopted along with hypnotic strategies that included hierarchical desensitization, sensory-imaging conditioning, ego-boosting suggestions, and hypnosis-facilitated differential muscle retraining. In two cases, a combined hypnosis and electromyographic-biofeedback approach was used to equilibrate and retrain affected neck muscles. **Although the hypnotherapeutic process took several months to induce and stabilize significant changes, outcome results were good to excellent in all cases, with marked reduction of the torticollis and the hypertrophy of the neck muscles as well as a reduced interference of symptoms in daily living.**

Dane, Joseph R..

**Hypnosis for pain and neuromuscular rehabilitation with multiple sclerosis: Case summary, literature review, and analysis of outcomes.**

International Journal of Clinical and Experimental Hypnosis, 1996,44 (3), 208-231.

ABSTRACT: Videotaped treatment sessions in conjunction with 1-month, 1-year, and 8-year follow-up allow a unique level of analysis in a case study of hypnotic treatment for pain and neuromuscular rehabilitation with multiple sclerosis (MS). Preparatory psychotherapy was necessary to reduce the patient's massive denial before she could actively participate in hypnosis. Subsequent hypnotic imagery and posthypnotic suggestion were accompanied by significantly improved control of pain, sitting balance, and diplopia (double vision), and a return to ambulatory capacity within 2 weeks of beginning treatment with hypnosis. **Evidence regarding efficacy of hypnotic strategies included (a) direct temporal correlations between varying levels of pain relief and ambulatory capacity and the use versus nonuse of hypnotic strategies, (b) the absence of pharmacological explanations, and (c) the ongoing presence of other MS-related symptoms that remained unaltered.** In conjunction with existing literature on hypnosis and neuromuscular conditions, results of this case study strongly suggest the need for more detailed and more physiologically based studies of the phenomena involved. -

## ONCOLOGIE

**Hypnose kan aangewend worden ter controle van misselijkheid en braken bij chemotherapie. Studies aangaande het gunstige effect van psychologische interventies op immunologie van kankerpatiënten zijn tot op heden controversieel. Onderstaande studie toonde wel een gunstig effect aan van hypnose op de immuniteit en op de psychische parameters bij oncologische patiënten.**

Marchioro G, Azzarello bG, Viviani F, Barbato F, Pavanetto M, Rosetti F, Pappagallo GL, Vinante O.

Oncology.2000 Aug;59(2):100-4.

**Hypnosis in the treatment of anticipatory nausea and vomiting in patients receiving cancer chemotherapy.**

**Marchioro G, Azzarello G, Viviani F, Barbato F, Pavanetto M, Rosetti F, Pappagallo GL, Vinante O.**

Department of Oncology, Local Health Unit No. 13, Noale, Italy.

AIMS AND BACKGROUND: In addition to nausea and vomiting following chemotherapy treatment, cancer patients can experience these side effects prior to a treatment session, the so-called anticipatory nausea and vomiting. As various psychological and neurophysiological aspects have been claimed to be implied in its etiopathogenesis, the present paper aims to shortly review the etiological, epidemiological and therapeutical assumptions on the topic, in particular the

out on 16 consecutive adult cancer patients affected by chemotherapy-induced anticipatory nausea and vomiting who had received at least four treatment cycles. All of them were submitted to induction of relaxation followed by hypnosis. RESULTS: In all subjects anticipatory nausea and vomiting disappeared, and major responses to chemotherapy-induced emesis control were recorded in almost all patients. CONCLUSIONS: **The experience highlights the potential value of hypnosis in the management of anticipatory nausea and vomiting;** furthermore, the susceptibility to anticipatory nausea and vomiting is discussed under the psychoanalytic point of view. Copyright 2000 S. Karger AG, Basel.

Publication Types: Clinical trial

J Psychosom Res. 2002 Dec;53(6):1131-7.

**The effect of hypnotic-guided imagery on psychological well-being and immune function in patients with prior breast cancer.**

**Bakke AC, Purtzer MZ, Newton P.**

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OBJECTIVE: To determine the effect of hypnotic-guided imagery on immune function and psychological parameters in patients being treated for Stage I or II breast cancer. METHODS: To determine the effects of hypnotic-guided imagery on immune function and psychological parameters, the following study was undertaken. Psychological profiles, natural killer (NK) cell number and activity were measured at baseline, after the 8-week imagery training program and at the 3-month follow-up. RESULTS: There were significant increases in improvement in depression ( $P < .04$ ) and increase in absolute number of NK cells, but these were not maintained at the 3-month follow-up. Hypnotic-guided imagery did cause some transient changes in psychological well-being and immune parameters. However, these changes were not retained after the treatment ended. CONCLUSIONS: Many studies during the last 15 years have demonstrated interactions between the central nervous and the immune systems. While a negative effect of stress on immune responses has been demonstrated, there have also been published reports that psychological treatments can positively alter the immune system. **However, given the complexities of immune system kinetics, the transient nature of any psychological effect and the insensitivity of immune assays, our study indicates that there is a role for hypnotic-guided imagery as an adjuvant therapy.**

## IMMUNOLOGIE

**Het werkingsmechanisme van hypnose op medische aandoeningen is momenteel nog onvoldoende opgehelderd. Waarschijnlijk speelt de invloed op immunologische parameters een belangrijke rol. Een aantal studies tonen het gunstige effect van hypnotische suggesties op diverse immunologische parameters.**

**Het artikel Van J. Gruzelier geeft een mooi overzicht van de huidige literatuur maar we selecteerden er tevens twee anderen waarin significant gunstige immunologische effecten teruggevonden werden.**

Stress. 2002 Jun;5(2):147-63.

**A review of the impact of hypnosis, relaxation, guided imagery and individual differences on aspects of immunity and health.**

**Gruzelier JH.**

Department of Cognitive Neuroscience and Behaviour, Imperial College of Science, Technology and Medicine, London, UK. j.gruzelier@ic.ac.uk

This review considers psychological interventions involving relaxation and guided imagery targeting immune functions. The review provides evidence of immune control accompanied by reports of enhanced mood and well-being. Three recent investigations of the author and his colleagues with self-hypnosis training incorporating imagery of the immune system are outlined. In two studies, hypnosis buffered the effects of stress on immune functions in medical students at exam time, and the

comparison of self-hypnosis with and without immune imagery confirmed advantages to targeted imagery for both immune function and mood, and importantly, fewer winter viral infections. The implications for health were investigated in a third study in patients with virulent and chronic herpes simplex virus-2 (HSV-2). Six weeks of training almost halved recurrence, improved mood and reduced levels of clinical depression and anxiety. Immune functions were up-regulated, notably functional natural killer cell activity to HSV-1. Individual differences in hypnotic susceptibility and absorption have typically been found to predict efficacy. New replicable evidence is reviewed of the importance of cognitive activation, a personality difference whose neurophysiological underpinning is consistent with left hemispheric preferential influences over the immune system. Now that the validation of psychological interventions includes advantages for health, this field of enquiry, which has been characterised by modest, small scale, largely preliminary studies, warrants a greater investment in research.

Am J Clin Hypn. 2003 Jan;45(3):179-96.

**Hypnosis, differential expression of cytokines by T-cell subsets, and the hypothalamo-pituitary-adrenal axis.**

**Wood GJ, Bughi S, Morrison J, Tanavoli S, Tanavoli S, Zadeh HH.**

University of Southern California, USA. gwood@usc.edu

This investigation tested the hypothesis that hypnosis can differentially modulate T-cell subsets, and that this effect is mediated by changes in hypothalamo-pituitary-adrenal (HPA) mediators. Seven healthy, highly hypnotizable volunteers participated in three one-day sessions, a baseline and two intervention sessions. Hypnosis intervention entailed a standardized induction, suggestions for ego strengthening and optimally balanced functioning of the immune and neuroendocrine systems, and post-hypnotic suggestions for stress management and continued optimal balance of bodily systems. Blood samples were drawn at five time points between 8:00 a.m. and 3:00 p.m. and were analyzed for T-cell activation and intracellular cytokine expression (Interferon (IFN)-gamma, Interleukin-2, Interleukin-4) and HPA axis mediators (ACTH, cortisol, and beta-endorphin). Following hypnosis intervention, statistically significant immunological effects were noted. Specifically, the proportion of T-cells expressing IFN-gamma ( $p = .0001$ ) and IL-2 ( $p = .013$ ) were lower after hypnosis. T-cell activation response to polyclonal stimulation was positively correlated with ACTH ( $p = .01$ ) and beta-endorphin ( $p = .001$ ) while IFN-gamma expression was correlated with levels of cortisol ( $p < .001$ ). Further controlled studies utilizing hypnosis with patients in treatment are warranted in order to examine whether an altered T-cell response can be replicated in the presence of disease.

J Consult Clin Psychol. 2001 Aug;69(4):674-82.

**Hypnosis as a modulator of cellular immune dysregulation during acute stress.**

**Kiecolt-Glaser JK, Marucha PT, Atkinson C, Glaser R.**

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To assess the influence of a hypnotic intervention on cellular immune function during a commonplace stressful event, the authors selected 33 medical and dental students on the basis of hypnotic susceptibility. Initial blood samples were obtained during a lower stress period, and a second sample was drawn 3 days before the first major exam of the term. Half of the participants were randomly assigned to hypnotic-relaxation training in the interval between samples. Participants in the hypnotic group were, on average, protected from the stress-related decrements that were observed in control participants' proliferative responses to 2 mitogens, percentages of CD3+ and CD4+ T-lymphocytes, and interleukin 1 production by peripheral blood leukocytes. More frequent hypnotic-relaxation practice was associated with higher percentages of CD3+ and CD4+ T-lymphocytes. These data provide encouraging evidence that interventions may reduce the immunological dysregulation associated with acute stressors.

Publication Types: Randomized Controlled Trial

Eur J Gastroenterol Hepatol. 1996 Jun;8(6):520-4.



degelijk goed gedocumenteerd! Maar talrijke aspecten aangaande het gebruik van hypnose voor medische aandoeningen werden tot op heden onvoldoende onderbouwd of dienen verder opgehelderd te worden. Het is hopelijk aan U en aan ons om daar werk van te maken ...