

"We need diversity of thought in the world to face the new challenges." Tim Berners-Lee

## Clinical Hypnosis within Integrative Oncology

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February 10<sup>th</sup> 2025

BRITISH PAIN SOCIETY WEBINAR PHILOSOPHY AND ETHICS SPECIAL INTEREST GROUP S Q Integrative Oncology

SIO 2024 Conference Guidelines & Publications

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#### About Us

#### The mission of the Society for Integrative Oncology is to advance evidence-based, comprehensive integrative healthcare to improve the lives of people affected by cancer.

SIO has consistently encouraged rigorous scientific evaluation of both pre-clinical and clinical science, while advocating for the transformation of oncology care to integrate evidence-based complementary approaches. The vision of SIO is to have research inform the true integration of complementary modalities into encology care, so that evidence-based complementary care is accessible and part of standard cancer care for all patients across the cancer continuum. As an interdisciplinary and interprofessional society, SIO is uniquely poised to lead the "bench to bediside" efforts in integrative cancer care.

#### What Is SIO?

Founded in 2003, SIO is the premier multi-disciplinary professional organization for integrative oncology. A 501(o)(3) not-for-profit organization, SIO enables communication, education, and research to occur by bringing together practitioners from multiple disciplines focused on the care of cancer patients and survivors.



**BSIO** 

BRITISH SOCIETY FOR INTEGRATIVE ONCOLOGY BridgingWorlds

Forging Connections



2 CELEBRATING 20 YEARS

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### INTEGRATIVE MEDICINE

Yes to Life's mission is all about improving access to Integrative Medicine for people with cancer. So what is Integrative Medicine and why do we feel so passionately about the need to support its development in the UK?

#### WHAT IS INTEGRATIVE MEDICINE?

Integrative Medicine is the judicious combining of conventional treatments such as chemotherapy, radiotherapy and surgery, with lifestyle and complementary therapies, to broaden patient choice, increase patient engagement, improve quality of life and extend survival.

It's a 'best of both worlds' scenario that has its roots in the patient perspective. Historically, it's been an 'either/or' situation between conventional medicine and other approaches, which has often placed patients in an extremely difficult position at one of the most stressful points in their lives. Any open-minded patient looking for the best possible outcome is far less interested in the label attached to an approach, than in whether or not it could help them. This is the perspective that underpins Integrative Medicine. Joint Member of the British & American Society of Integrative Oncology

(BSIO & SIO).

Supporter of 'YestoLife' Charity

Home

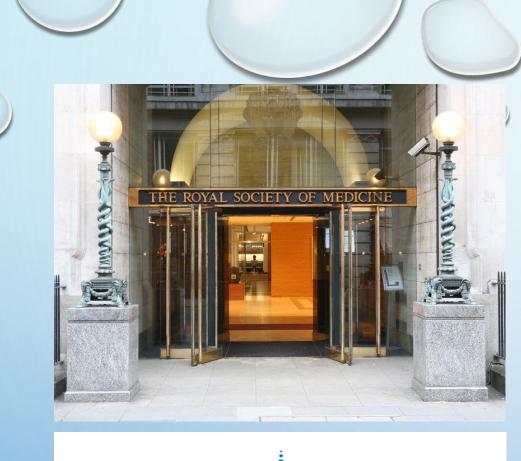
Advocating integrative use of Photobiomodulation



## THE WORLD ASSOCIATION FOR PHOTOBIOMODULATION THERAPY PRESENTS PBDR2024 LONDON

LONDON, UK AUGUST 23-25, 2024

TO YEAR ANNIVERSARY





## Disclosures

President of the Section of Hypnosis & Psychosomatic Medicine at the Royal Society of Medicine.

Founder of Tranceform-Medical Ltd.



MEDICAL RESEARCH

#### Surgery while you're wide awake? MD Anderson doctors using hypnosis instead of general anesthesia

By <u>Pooja Lodhia</u> 🧐 Monday, May 7, 2018

#### March 18, 2022

Self-Hypnosis Can Reduce Anxiety Related to Gynecologic Surgery

Leah Lawrence



Staff anesthesiologist Elizabeth Rebello, background, watches as Rosalinda Engle, a "mind-body intervention specialist" at MD Anderson Cancer Center, uses hypnotherapy on a patient. "Hypnosedation will not completely replace general anesthesia," Rebello says. (MD Anderson Cancer Center)



ne surger y on the 75-year-old patient an anaestnetic team was standing by just in case was image. Con

NEWS POLITICS FOOTBALL CELEBS TV CHOICE ROYALS

World's first deep brain surgery using hypnosis instead of anaesthetic cures elderly patient's trembling hands

Doctors carried out the deep brain stimulation procedure to cure the 73-year-old patient

By Patrick Lion 16:01, 10 Jan 2017 | UPDATED 16:06, 10 JAN 2017

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BOOKMARK

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Space Physics Technology Environment Mind Humans Life Mathematics Chemistry Earth Society

Health

#### Doctors are hypnotising people before surgery to help reduce anxiety

Listening to hypnosis recordings can reduce a person's pain and nerves during a medical procedure, and could even mean that they require a lower dose of sedatives
By Care Wilson
P 28 April 2023

Hypnosis shows promise to ease pain of spine injuries

Hypnosis is effective in helping people with recent spinal cord injuries learn coping strategies to fight chronic pain, a new study shows. Almost 90% of study participants reported benefit from the treatment.

() JUL 26, 2023

### How hypnotherapy helps soothe patients on NHS waiting lists

#### Dominic Hauschild

Sunday October 29 2023, 12.01am, The Sunday Times



Gail Marra says that enquiries for hypnotherapy treatment have doubled since the pandemic

#### THE AND TIMES

The media is raising public awareness... but *is the wider Medical Profession sufficiently aware of what Clinical Hypnosis can do* 

## **'I was hypnotised into thinking I had a gastric band'**

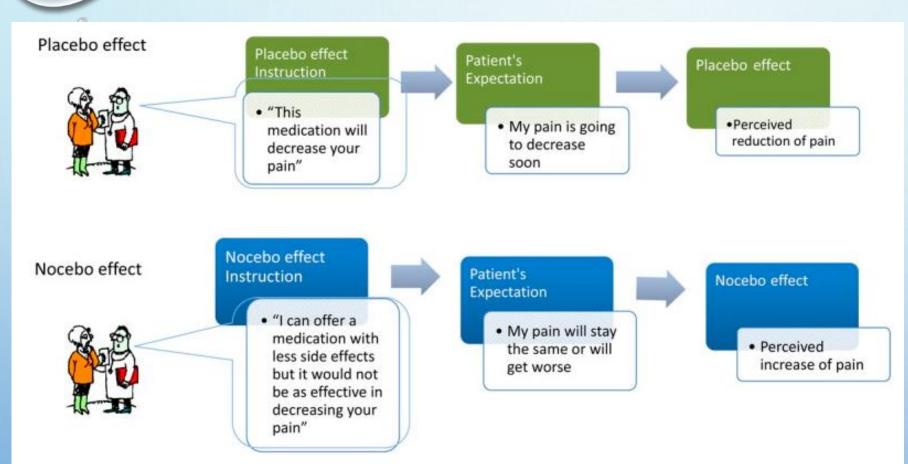
Patients are skipping surgery for a radical new weight-loss treatment. Does it work — or is it all in the mind?

#### HEALTH

### How I finally beat my anxiety — the 9-minute trick

Rosamund Dean on the hypnotherapy app that finally stilled her whirring 3am brain

## OThe Power Of Suggestion



Altered brain state – the brain responds to an imagined scene in much the same way as it responds to an actual visualised scene. Enhanced by

- Empathic care
  - the 'Relaxation Response'
- Expectation and
- Hypnosis.

Nocebo phenomena are exacerbated by

- Fear
- Anxiety
- Tension
- Prior negative experience

Hypnosis changes the Psychosomatic Experience



John Elliotson 1791–1868 Eminent Physician Founder of UCL medical School

Founder of UCL medical School Early study & promotion of Hypnosis

MESMERISM IN INDIA;

PRACTICAL APPLICATION IN SURGERY AND MEDICINE.

JAMES ESDAILE, M.D.,

HARTFORD: SILAS ANDRUS AND SON.

1851

James Esdaile 1808-1859

CIVIL ASSISTANT SURGEON, H. C.



I beg, to state, for the satisfaction of those who have not yet a practical knowledge of the subject, that I have seen no bad consequences whatever arise from persons being operated on when in the mesmeric trance.

Cases have occurred in which no pain has been felt subsequent to the operation even; the wounds healing in a few days by the first intention; and in the rest, I have seen no indications of any injury being done to the constitution. There has not been a death among the cases operated on.

J.Esdaile 1846

Franz Anton Mesmer 1734–1815

# ITHE Beginnings of Modern Hypnosis

BRAID

James Braid 1795-1860 coined term 'Hypnosis'

# A history of hypnotism



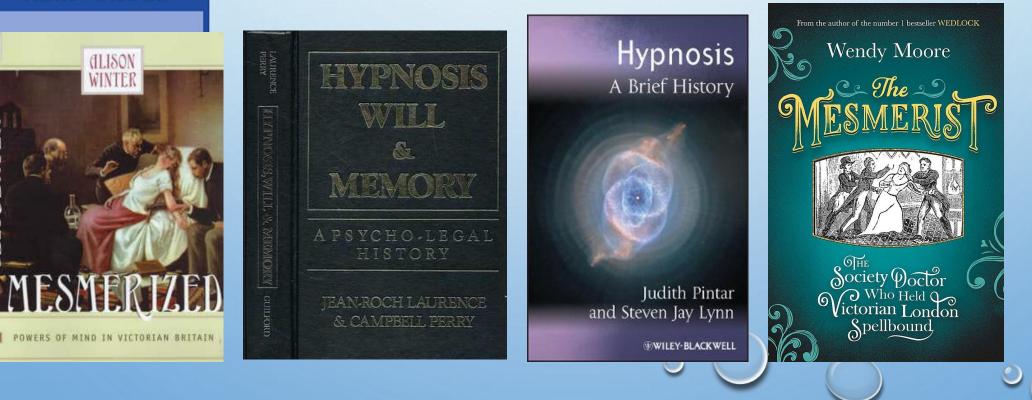
#### ALAN GAULD

dLISON WINTER

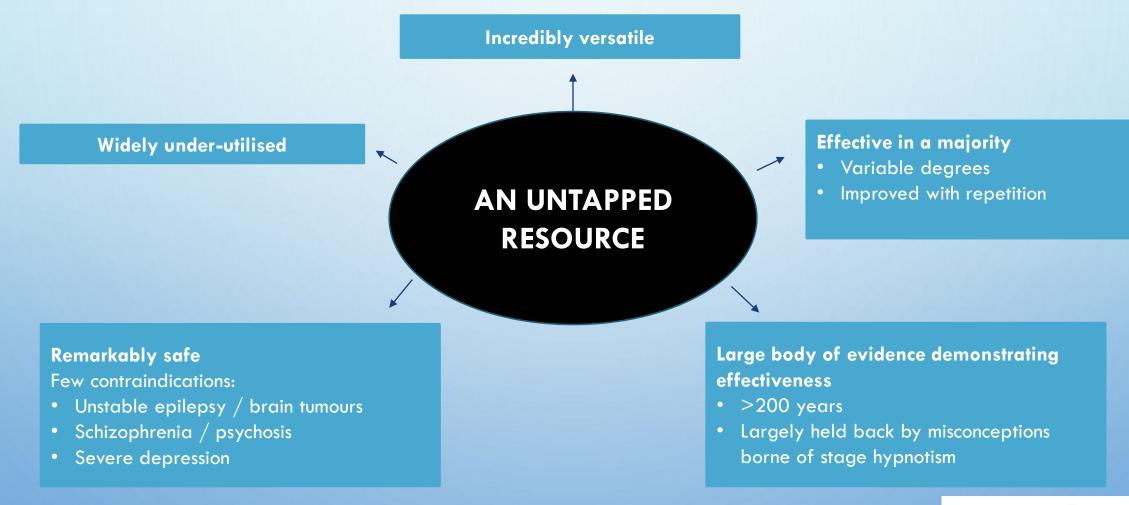
## History of hypnosis

## **BRITISH MEDICAL ASSOCIATION, 1955**

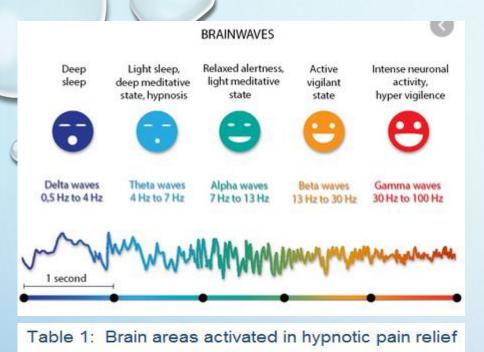
BMA approved the use of hypnosis in the areas of psychoneuroses and hypnoanesthesia in pain management, in childbirth and surgery. At this time, the BMA also advised all physicians and medical students to receive fundamental training in hypnosis.



## CLINICAL HYPNOTHERAPY: A CINDERELLA SCIENCE







Brain area	Function			
Thalamus	Relays and synchronizes sensory input into a unified image			
Somatosensory cortex (S1, S2)	Registers sensory input			
Insula	Translates sensory input into emotions, desires, perception, self-awareness			
Anterior cingulate cortex (ACC)	Converts physical/emotional awareness into intentions and actions			
Prefrontal cortex (PFC)	Orchestrates thoughts and actions in accordance with internal goals and beliefs			
Occipital cortex (OC)	Processes imagery			
Basal ganglia (BG)	Regulates voluntary motor control and procedural learning of routine behaviors			

Cerebral Mechanisms of Hypnotic Induction and Suggestion

July 1999 - Journal of Cognitive Neuroscience 11(1):110-25

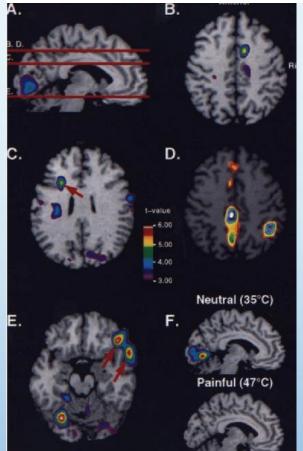


Figure 1. Statistical (1) maps of hypnosis-related increases in rCBF,

>200yrs of literature, case studies, neuro-science and psychological research, and yet **Hypnosis training is STILL not routinely integrated into medical and dental curricula**, and translational studies are not readily funded.

A great deal more work needs to be done to:

- Explore the use of hypnosis in clinical settings & survivorship
- Understand the mediators and moderators of hypnosis interventions, and
- Develop effective dissemination strategies

1. Minnesota Hypnotherapy Associates. Brain Activity During Hypnotic Pain Relief. Available at: http://www.mnhypnotherapyassociates.com/index.php/brain-activity-during-hypnotic-pain-relief/ (accessed October 2018);



# **Hypnosis**

Hypnosis is a valuable tool which involves interaction between body and mind, using the mind to affect therapeutic change, and can be instrumental in engendering coping strategies, helping people to connect with their inner being and activate innate healing forces.

(Spiegel and Moore 1997, Owens 2002)

Hypnosis is a natural state of aroused, attentive focal concentration coupled with relative suspension of peripheral awareness

Inducing a trance state that allows effective communication with the sub-conscious mind to accept beneficial therapeutic suggestions which improve well-being without conscious rationalisation.

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### What it's not...

- A Panacea: one size does not fit all...
  - Population variability in potential to benefit from clinical hypnosis
    - 10% highly suggestible, 80% variably/ improve with repetition, 10% refractory
- A substitute for evidence-based, modern medical/ surgical techniques or medication, within a safe setting after individualised management plans have been devised by an appropriate multidisciplinary team after diagnostic investigations.

We Can All Be Hypnotherapists: Changing Perception with Language, Distraction & Imagination<sup>1,2</sup>

### COMMON PHRASES THAT ENHANCE ADVERSE PERCEPTION

'Just a little prick'

'This won't hurt much'

'Scratch coming up'

'How much pain are you in?'

will 'feel like a little bee sting and then it will burn'

'I need to warn you that side effects include sickness, infection, fatigue.....'

 Lang E. Patient sedation without medication: rapid rapport and quick hypnotic techniques. A resource guide for doctors, nurses, and technologists. Createspace, 2011. lsbn: 1461037603, 9781461037606.

2. Adapted from: comfort talk. Available at: https://comforttalk.Com/ (accessed october 2018)

### ALTERNATIVES

*I am injecting the numbing medicine that will cause a sensation under your skin, and notice how quickly it gets numb'* 

...as I pop in this cannula, just leave your hand to me, tell me about your favourite activity, and you might not even notice what <u>the</u> hand feels...'

'Just relax and breathe, and try and find the most comfortable part of yourself and let that spread...that's right...I wonder where that is?'

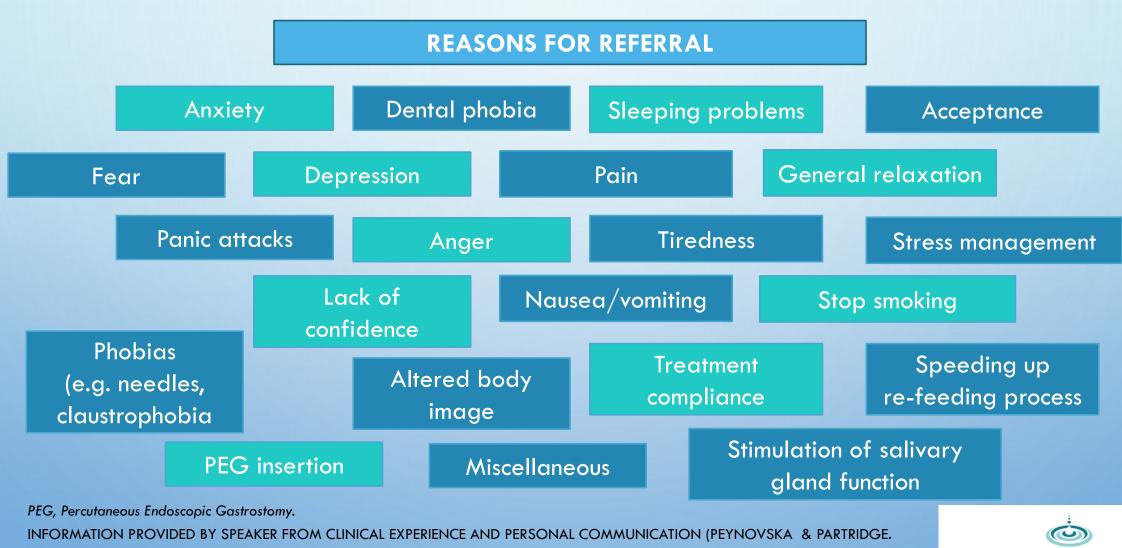
' you may be pleasantly surprised just how quickly you heal...'

### Seed Positive Suggestions...

*`...although any consent form lists almost all potential risks & sideeffects, most won't happen, and your body has a program to heal well, and so I want you to see yourself recovering in record time...'* 

'...no-one can say how long any of us can live, but we can enhance our immunity & well-being merely but just the way we think, and choosing to make every challenge an adventure, & We are all here to help you....so relax...'

## Hypnotherapy in Oncology



CHARING CROSS HYPNOTHERAPY SERVICE 2007–2013)

Tranceform-Medical

### Misconceptions that breed Fear & Anxiety Delaying Transitions from Stage to Clinic

'Hypnotic' Phenomena	Misconception/ Myth	Fact and Evidence
Trance (a commonly underspecified: a state of focussed attention)	Trance often confused with a sleep state	<ul> <li>Term ' trance' is unhelpful in defining the process,</li> <li>differs between and within individuals and circumstances.</li> <li>Sleep /Trance EEG characteristics very different.</li> <li>Can be 'induced' by a systematic sequence of suggestions in willing subjects.</li> </ul>
A hypnotist has magical skills	Secret powers	Anyone can be a hypnotist but you need training to be a hypnotherapist. 'All hypnosis is self-hypnosis'an inherently more permissive state.
Hypnotic amnesia	You won't recall what is said by a hypnotist	Spontaneous Amnesia is rare, & explicitly accepted as a helpful phenomenon as a post hypnotic suggestion. (The majority of daily events and conversations are subject to 'amnesia' from conscious awareness.)
Deep Trance states	You can get stuck in hypnotic trance	Even the most suggestible subjects will come out of trance spontaneously after about 10mins. Resistance to any suggestion to 'awaken' from trance is usually due to subject enjoying the experience.
Locus of Control	You are under the control of the hypnotist	There is no evidence that hypnosis is superior to any other technique used to control others. Therapy should be done employing the highest ethical principles, and divorced form any 'showmanship'. In fact, Hypnosis can <b>enhance control</b> over unwanted symptoms or thoughts to bring therapeutic benefits.
Reliability and honesty within hypnotic states	Recovered memories, Past Lives recollection	Hugely controversial: False memories can be unwittingly induced, and should not be trusted unless corroborated. Honesty should not be assumed.







## Hypnotherapy and Surgery ... just some of the evidence:

### Peri-Operative Reduction in Patient:

- $\succ$  pain sensation<sup>1-5</sup>
- hausea and vomiting<sup>1,7,10,11</sup>
- > peri- and post-operative anxiety<sup>8,9</sup>
- > postoperative analgesic administration<sup>5,6</sup>

Intra-operative Benefits with decreased:
intraoperative narcotic and sedative use<sup>6-7</sup>
postsurgical blood transfusion<sup>12</sup>
duration of procedure<sup>13-15</sup>
post-operative behaviour disorders<sup>8</sup>

### Stabilisation of :

- ✓ heart rate and systolic blood pressure<sup>1</sup>
- ✓ desirable vascular control<sup>10,16</sup>

1. Defechereux T, et al. Ann chir. 2000;61:539–46; 2. Montgomery GH, et al. Int J clin exp hypn. 2000;48:134–149; 3. Montgomery GH, et al. Anesth analg. 2002;94:1639–45; 4. Faymonville M, et al. Pain. 1997;73:361–7; 5. Meurisse M, et al. Ann endocrinol. 1996;57:494–501; 6. Mackey EF. Int J clin exp hypn. 2010;58:21–38; 7. Faymonville M, et al. Regional anesthesia. 1995;20:145–51; 8. Calipel S, et al. Pediatric anesthesia. 2005;15:275–81; 9. Sadaat H, et al. Anesth analg. 2006;102:1394–6; 10. Enqvist B, et al. Acta anesthesiol scand. 1997;41:1028–32; 11. Montgomery GH, et al. J natl cancer inst. 2007;99:1304–12; 12. Hart RR. Int J clin exp hypn. 1980;28:324–32; 13. Lang, et al. Lancet. 2000;355:1486–90; 14. Butler, et al. Clin psychol rev. 2005;26:17–31; 15. Lambert SA. J dev behav pediatr. 1996;17:307–10; 16. Mcguirk J, et al. Contemp hypn. 1998;15:101–8.



## Pain Management Using Hypnosis

Trance states mimic brain traces seen in anaesthesia induction on EEG

- Hypno-anaesthesia reduces the need for medication
  - Few indications for pure hypnoanaethesia
- Hypnosis allays fear, anxiety and tension
- Identify good hypnotic subjects
  - Rapport needed
- Glove anaesthesia
  - Transfer numbness from hand to relevant part
- Rehearsal pre-op
  - E.g. **7-8** sessions for thyroidectomy/ breast surgery/ caesarian

- Methods Used
  - Self- Hypnosis training and progressive relaxation
    - "The more relaxed you are, the less tension, and the less discomfort you will have..."
  - Describe surgical detail
    - Reassurance effects are working
    - Positive feedback, reassurance,
  - Therapeutic Suggestions for
    - Catalepsy
      - Numb & Cold
    - Peri-operative/ procedural and postoperative recovery/ analgesia

## The Effectiveness of Adjunctive Hypnosis <u>With</u> Surgical Patients: A Meta-Analysis

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Guy H Montgomery<sup>1</sup>, Daniel David, Gary Winkel, Jeffrey H Silverstein, Dana H Bovbjerg

Meta-analysis Of Controlled Studies (N=20)

- to determine whether
  - hypnosis has significant benefit
  - outcomes for which it is relatively more effective
  - method of induction (live vs audiotape) affects efficiency



- Hypnosis treatment had better outcomes than 89% controls
- No signif diff between
  - outcome categories
  - method of induction
- Hypnosis is an effective adjuvant procedure for a wide variety of surgical patients

Effect of therapeutic suggestions during general anaesthesia on postoperative pain and opioid use: multicentre randomised controlled trial

#### ABSTRACT

#### OBJECTIVE

To investigate the effect of therapeutic suggestions played to patients through earphones during surgery on postoperative pain and opioid use.

#### DESIGN

Blinded randomised controlled study.

#### SETTING

Five tertiary care hospitals in Germany.

#### PARTICIPANTS

385 of 400 patients consecutively recruited from January to December 2018 who were to undergo surgery for 1-3 hours under general anaesthesia. In the per protocol analysis 191 patients were included in the intervention group and 194 patients in the control group.

#### INTERVENTION

The intervention comprised an audiotape of background music and positive suggestions based on hypnotherapeutic principles, which was played repeatedly for 20 minutes followed by 10 minutes of silence to patients through earphones during general anaesthesia. Patients in the control group were assigned to a blank tape.

#### OUTCOME MEASURES

-opioid dose via pt-adminanaesthesia in 24h

-Regular pain intensity evaluations (1-10)

#### RESULTS

- Intervention Grp Vs Control
  - Signif Lower Opioid Dose (P=0.002)
  - No. Pts Needing
     Opiods Reduced
     (P=0.001)
    - 121/191 (63%) Intervention
    - 155/194 (80%) Control
  - Pain Scores Lower
    - Av Reduction 25%
  - No Adverse Events

#### thebmj | BMJ 2020;371:m4284 | doi: 10.1136/bmj.m4284



#### WHAT IS ALREADY KNOWN ON THIS TOPIC

Perception during general anaesthesia has been reported, mostly with negative consequences such as with "intraoperative awareness"

Studies on perception during anaesthesia have been undertaken with the intention of using it positively

A recent meta-analysis of older trials indicates improvements in postoperative recovery

#### WHAT THIS STUDY ADDS

This study found a reduction in postoperative pain and need for opioids after delivery of therapeutic suggestions during surgery, with a number needed to treat of 6 to avoid postoperative opioids The underlying intraoperative perception suggests that surgical teams should be aware of background noise or negative conversations during surgery Therapeutic suggestions during surgery could provide a safe, feasible, inexpensive, and non-drug technique to reduce postoperative pain and opioid use, with the potential for more general use

### Meet the NHS nurse hypnotising Somerset patients as part of new trial

The radical new care is hoped to help with pain and recovery after surgery



Ana-Maria Toth from Musgrove Park Hospital

NEWS By <u>Tomas Malloy</u> Reporter 00:00, 9 OCT 2023

A clinical nurse researcher at Somerset NHS Foundation Trust has launched a new study to test whether hypnosis could benefit patients after surgery. Ana-Maria Toth is aiming to recruit at least 40 patients to receive hypnosis while they're recovering from colorectal surgery, in an effort to determine whether it helps with their pain and overall recovery.

Ana previously worked on Musgrove Park Hospital's gastroenterology ward, before moving to a surgical ward, where she began to look at different ways of managing people's pain in the days after surgery. She is now undertaking a research project which offers hypnosis on top of standard care procedures.

The research project began in July 2023 at Musgrove Park Hospital. Ana says she is "using hypnosis in a really positive way", adding that patients "really have nothing to lose as they'd still get the same level of care as before, but with the potential addition of hypnosis".

Hypnopal is a feasibility trial that will inform a future study looking at whether hypnosis could help with pain & recovery

Point-of-Care Testing of Enzyme Polymorphisms for Predicting Hypnotizability and Postoperative Pain

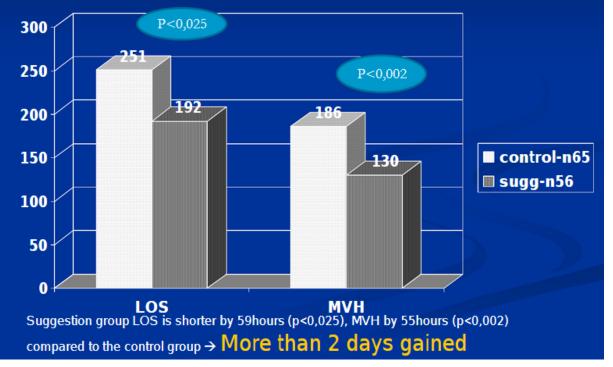
Dana L. Cortade 🙎 🖾 • Jessie Markovits • David Spiegel • Shan X. Wang

Published: January 23, 2023 • DOI: https://doi.org/10.1016/j.jmoldx.2023.01.002 • 🖲 Check for updates

# Positive effects of psychological support based on positive suggestions (PSBPS) on the recovery of ventilated patients

Potential for MP3 Hypnotic suggestions in wider settings

Lenght of Stay (LOS) and Mechanical Ventillation(MVH) in the Control and the Suggestion Group Only min. 48h MV (n=121, 65 ctr vs 56 sugg)



### **Durable Secondary Gains beyond Recovery**

- Fewer negative somatic perceptions, less pain
- More positive thoughts and emotions
  - & attitude towards the staff
- More intensive own activity
  - & feeling of self-efficiency
- Protection against PTSD
  - Less negative memories
  - It is easier to integrate this experience into the patient's overall life history

\*\*\* K. Szilágyi A., Diószeghy Cs., Fritúz G., Gál J., Varga K.(2014): Shortening the Length of stay and Mechanical Ventilation Time by using Positive Suggestions Via mp3 Players for Ventilated Patients, *Interventional Medicine and Applied Science* Vol. 6 (1), pp. 3–15 (2014)



Surely a missed opportunity to disseminate this easy intervention within the Covid Era?

## **Benefits of Hypnotherapy in Oncology Studies**

- Significant improvement in chronic pain and anxiety at 1 & 2 year follow-up<sup>1,4,7</sup> (P<0.0001)</li>
- Reduced postoperative hospital stay<sup>2-3</sup>
- Improved body image and sexual function<sup>5</sup>
- Reduced pain in H&N patients post RT<sup>6</sup>
- Reduced distress & depression, pain interference, with improved sleep management<sup>7</sup>

- Reduced hot flashes in breast cancer patients
   <sup>8,12</sup>
- Management of anticipatory nausea & vomiting <sup>9,10</sup>
- Control of Respiratory motion in Lung Ca pts during RT<sup>11</sup>
- Reduced anxiety and pain related to venepuncture<sup>13</sup>
- Management of phobias & PTSD <sup>14</sup>

1.Brugnoli et al. Ann palliat med 2018 jan;7(1) 17-31 2. Berliere et al. Breast 2018 feb;37:114-118 3. Montgomery GH, et al. J natl cancer inst.
2007;99:1304–12; 4. Worldviews evid based nurs. 2017 jun:14(3):223-236; 5 cieslak et al. Oncol nurs forum. 2016 nov 1;43(6):E233-E241;
6. Thuma et al. J med assoc thai. 2016 aug;99 suppl 5:S141-7 7. Mendoza et al. Psychooncology.2017 nov;26(11):1832-1838 8. Cramer et al.
Inegr cancer ther. 2015 jan;14(1):5-15 9. Kravits jadv pract oncol 2015 may-jun;6(3):225-9 10. Marchioro oncology 200 aug;59(2):100-4 11. Li et al. Biomed res int; 20133;574934 12. Elkins et al. J clin oncol 2008 nov 1;26(31):5022-6 13. Liossi et al. Pain. 2009 apr(142(3):255-63 14.
Speigel depress anxiety 2013 apr;30(4):342-52



## **Benefits of Hypnotherapy in Palliative Care**

• Hypnotic training as a coping skill and a platform for spiritual exploration<sup>1</sup>

•...

- Meditative and hypnotic approaches appropriate for palliative settings of care<sup>2</sup>
- Patients often live with symptoms over a long period, which are only partially responsive to pharmacological and other therapies. Hypnosis helps improve symptom control and quality of life. <sup>3</sup>
- Hypnosis can be used to control chronic pain, improve anxiety in chronic disease, reduce fatigue, manage depression, enhancing coping capacity, relieve psychosomatic symptoms, & treat brain injuries . Beyond symptom management, clinical hypnosis can sustain and enhances hope.<sup>1,4,5</sup>

- ASCO 2022 guidelines recommend Hypnosis for patients who experience procedural pain.<sup>6</sup>
- Hypnosis for pediatric patients experiencing a life-limiting disease not only provides an integral part of advanced symptom management, but also supports children dealing with loss and anticipatory loss, sustains and enhances hope and helps children and adolescents live fully, making every moment count, until death.<sup>7</sup>
- Limited number of studies in this meta-analysis; but hypnosis and music intervention in PC shows promising results in terms of feasibility and acceptability, with improvements in pain, anxiety, sleep and well-being, underscoring the importance & *need of further research*.<sup>8</sup>

 1. Brugnoli. M Spiritual Healing In Palliative Care With Clinical Hypnosis: Neuroscience And Therapy. Am J Clin Hypn. 2023 Dec 20:1-13 Https://Doi.Org/10.1080/00029157.2023.2281466

 2. Vayne-bossert P. Hypnosis For Symptom Management In Adult Cancer Patients: What Is The Evidence? Curr Treat Options Oncol. 2024 Mar;25(3):364-375. Doi: 10.1007/S11864-023-01168-y. Epub 2024 Jan 4.

 3. Booth S. Hypnosis In A Specialist Palliative Care Setting - Enhancing Personalized Care For Difficult Symptoms And Situations Palliat Care Soc Pract. 2020 Oct 12;14:2632352420953436. Doi: 10.1177/2632352420953436.

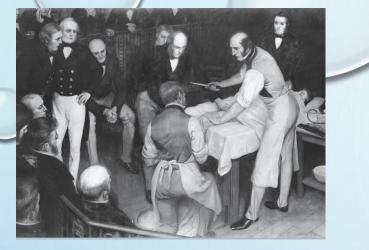
 4. Kirsch I, Montgomery G, Sapirstein G. Hypnosis As An Adjunct To Cognitive-behavioral Psycho-therapy: A Meta-analysis. J Consult Clin Psychol 1995;63:214-20.

 5. Marcus J, Elkins G, Mott F. The Integration Of Hypnosis Into A Model Of Palliative Care. Integr Cancer Ther 2003;2:365-70.

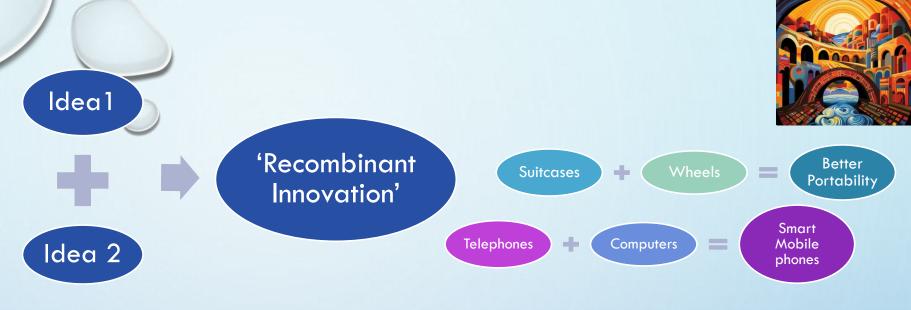
 6. Integrative Medicine For Pain Management In Oncology: Society For Integrative Oncology-asco Guideline 2022 Dec 1;40(34):3998-4024. doi: 10.1200/JCO.22.01357. Epub 2022

 7. Friedrichsdorf SJ Integration Of Hypnosis Into Pediatric Palliative Care Ann Palliat Med. 2018 Jan;7(1):136-150. Doi: 10.21037/Apm.2017.05.02.

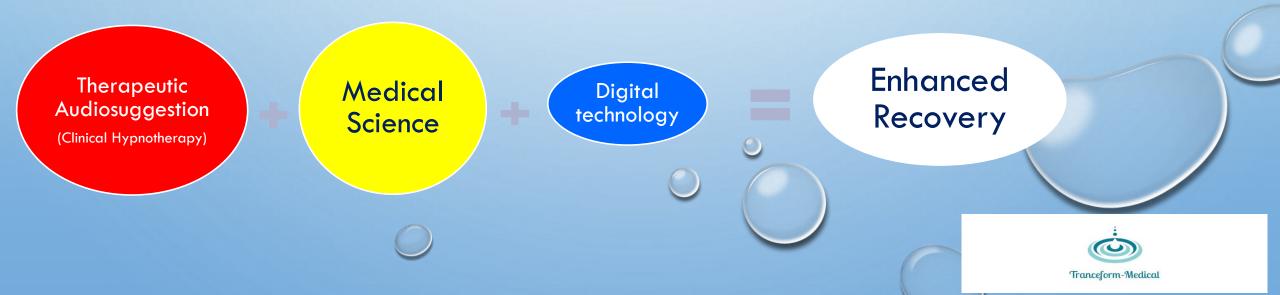




James Esdaile : Unexpectedly good outcomes for surgical patients after Hypnotic Anaesthesia



## 'To Create is to Recombine' : Francis Jacob, Microbiologist





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## Learn Self Hypnosis

..and Experience how a droplet of Imagination can create the waves to Change your Mind, Your Life, your World.

Programs Designed by Doctors, Endorsed by Patients.

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Learn Self HypnosisOur Gift To You	Programmes for Healthcare Providers & Carers'	Medically Designed Programmes for Patients	Evidence to prove it works	Events and Workshops	

## 'Tranceform-Medical': A Hypnotherapeutic Partnership: Sarah Partridge & Rumi Peynovska

Website-based self hypnosis training supported by:

- Audio files for a variety of oncology issues
  - Anxiety
  - Peri-operative recovery & symptom control
  - Pain management
  - Claustrophobia
  - Radiotherapy
  - Healing & recovery
- Opportunity for audit & implementational evaluation of patient experience
  - Symptom control
  - Bed-days
  - Preliminary cost savings evaluation



Collaboration with other centres: Devise grant

To assess health economic effects of

implementing self-hypnosis with medical &

Motivate more healthcare professionals to

train in the use of clinical hypnotherapy.

proposals for future RCTs

surgical interventions.

## Implementational Challenges: Harnessing Long-term Potential

- Paucity of RCTs using hypnosis in cancer patients
  - Even when hypnotic intervention RCTs establish benefit (hypnotherapy most effective intervention in drug-refractory IBS)
    - Wider implementation of hypnosis in gastroenterology very patchy in UK
  - Meta-analyses of studies using hypnosis show statistically significant benefits
- UK lags behind Europe significantly in its integration of medical hypnosis
- Challenge is to re-educate our patients & medical fraternity, and devise means to deliver ADJUVANT hypnotherapy in a 'cost-neutral' framework within the NHS
  - Integrate hypnotherapeutic training into specialty MDT settings
    - Psychological 'tools' for clinicians to increase wellbeing (themselves & their patients!)
    - AHP education to support patient use of on-line resources







## Other Integrative Options for Pain Prophylaxis & Management ...

- Patient Education
- Psychological Support, processing past trauma
  - Acupuncture
  - Photobiomodulation....

## Photobiomodulation (PBM) for Oral Mucositis

PBM is the application of monochromatic light (one wavelength)

- Tissue Repair
- Inflammation
- Oedema
- Pain



Not a heat therapy



Vitamin D



Sun Tanning



0

Psoriasis and vitiligo

2 9 Neonatal jaundice

These are established responses to light

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### PHOTOBIOMODULATION STATE OF THE ART

1,655 Clinical trials (RCTs)
5,000 Laboratory studies
772 Academic papers in 2024
10,669 Academic papers in total



for oral mucositis



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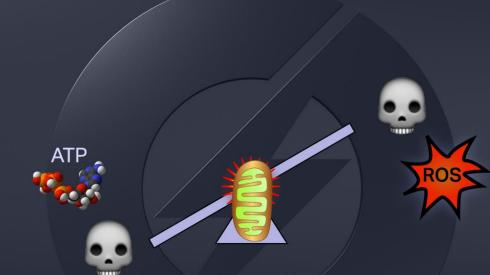
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## NHS users of PBM for Oral Mucositis and/or late effects

Nottingham University Hospitals NHS Trust Royal United Hospitals Bath NHS FT Newcastle upon Tyne Hospitals NHS FT University Hospitals of Leicester NHS Trust Northampton General Hospital NHS Trust Leeds Teaching Hospitals NHS Trust Royal Cornwall Hospitals NHS Trust East Suffolk and North Essex NHS FT Royal Aberdeen Children's Hospital Birmingham Children's Hospital Royal Devon and Exeter NHS FT Imperial College Healthcare NHS Trust Royal Surrey NHS FT The Royal Marsden NHS FT Gloucestershire Health and Care NHS FT Royal Hospital for Children Glasgow Bristol Royal Hospital for Children St Luke's Radiation Oncology Network (EIRE)



## How it works



3 3

#### **OXIDATIVE STRESS**

NF-ĸB "The master switch for inflammation"

TNF-α IL-6 CRP Cox 2 PGE2 IL-1β IL-2 IL-7 IL-7 IL-8 PGE2 MCP-1

Inflammation Necrosis Degenerative diseases Ageing

THØR

0

## Less Oxidative Stress and More ATP

#### MORE ATP

## NF-ĸB "The master switch for tissue repair"

cAMP IL -10

#### Activates Nrf2 pathway

- Superoxide dismutase
- Catalase,
- Glutathione peroxidase

#### Reg T cell population

- Anti-Inflammatory Cytokines
- Dendritic Cell Function
- Growth Factors

Stem cells Extracellular matrix deposition Cell motility < Apoptosis

Tissue regeneration Pro-survival genes

> 3 4

#### **OXIDATIVE STRESS**

NF-ĸB "The master switch for inflammation"

- TNF-α IL-6 CRP Cox 2 PGE2 IL-1β IL-2 IL-7 IL-8 PGE2 MCP-1
- Inflammation Necrosis Degenerative diseases Ageing



### **PBM ANALGESIC MECHANISMS**

- PBM reduces peripheral nociceptive input by inhibiting fast axonal flow, decreasing amplitude in superficial C-fibres and Aδ fibres Chow 2011 (reducing hyperalgesia and allodynia Cheng 2022).
- PBM reduces Primary Hyperalgesia (increased sensitivity of nociceptors (Cheng 2022) and neuralgia by reducing inflammatory mediators such as bradykinin & PGE<sub>2</sub> Chow 2011
- PBM applied to the spine reduces the activity of the Dorsal Root Ganglion (DRG) (Chow 2011, Sympathetic Ganglia, and Dorsal Horn, reducing signal propagation (Chow 2011)
- That reduces facilitation (Cheng 2022) and wind-up (the amplification of pain processing in the spinal cord and brain known as central sensitisation), reduces hypersensitivity (Buzza 2024) and hyperexcitability (Secondary Hyperalgesia). (Westlund 201/1)
- Another downstream effect is improved descending inhibitory control (Cheng 2022) and the release of endorphins, (Hagiwara 2007) which enhance pain relief and improve emotional well-being

Oono 2022 Photobiomodulation enhanced endogenous pain modulation in healthy volunteers. PMID 36562828.pdf Cheng 2022 Mechanisms and Pathways of Pain Photobiomodulation: A Narrative Review. PMID 33636371 Buzza 2024 Selective neural inhibition via photobiomodulation alleviates behavioral hypersensitivity associated with small sensory fiber activation. PMID 38291819 Hagiwara 2007 GaAlAs (830 nm) lowlevel laser enhances peripheral endogenous opioid analgesia in rats. PMID 18081143 Chow 2011 Inhibitory Effects of Laser Irradiation on Peripheral Mammalian Nerves and Relevance to Analgesic Effects: A Systematic Review. PMID 21456946



## **Photobiomodulation therapy (PBM)- THOR equipment**

- Application of light using LEDs to promote tissue repair, reduce inflammation & reduce pain, via increased cellular metaboism
  - Bi-weekly for 6 wks
    - N=27 (mean 3y, max 15y post RT)
    - Improved
      - neck mobility
      - Dysphagia
      - Voice
    - Reduced
      - neck pain,
      - Lymphoedema

Prices from US\$15,000 to US\$40,000 (£11,200-£32,000 + VAT)

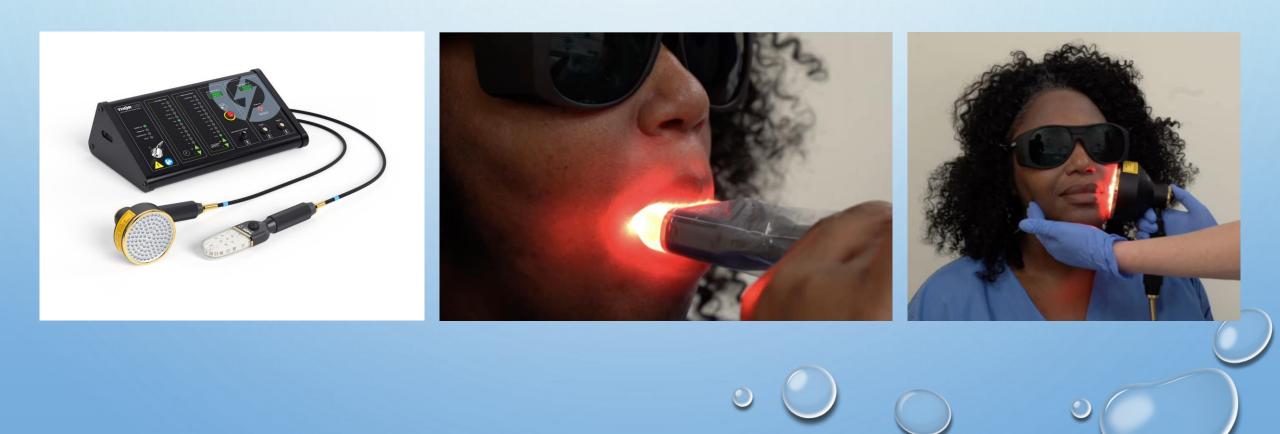


- National Institute for health and Care Excellence (NICE) Guidelines in the UK recommended PBM/LLLT for preventing or treating oral mucositis caused by radiotherapy or chemotherapy
  - interventional procedures guidance published: 23 may 2018 nice.org.uk/guidance/ipg615

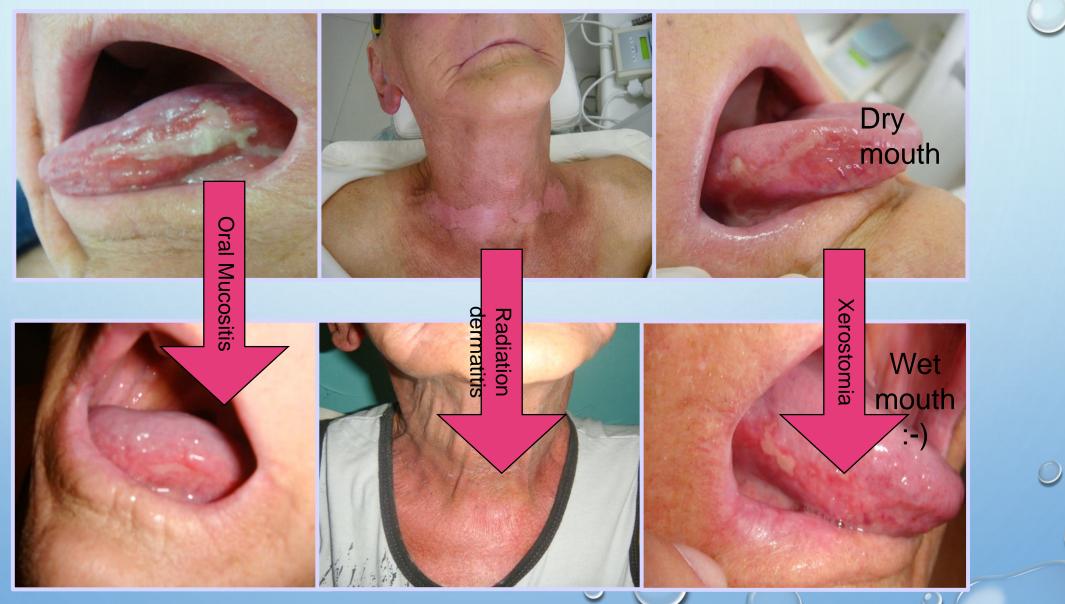
#### **NICE** National Institute for Health and Care Excellence

Low-level laser therapy for preventing or treating oral mucositis caused by radiotherapy or chemotherapy Interventional procedures guidance Published: 23 May 2018 nice.org.uk/guidance/ipg615

- 1 Recommendations
- 1.1 Current evidence on the safety of low-level laser therapy for oral mucositis shows no major safety concerns. Evidence on efficacy is adequate in quality and quantity. Therefore, this procedure can be used provided that standard arrangements are in place for clinical governance, consent and audit.



## **Oral Mucositis**



## Photobiomodulation

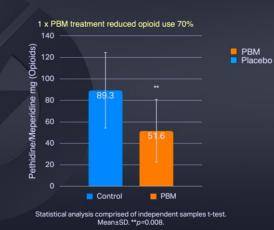
- NICE approved for reduction of RT-induced acute mucositis
- Established in many centres across the UK
  - Also used in paediatric haem-oncology units
- Safe and simple to administer
  - Training support provided for stakeholders
  - Scope for additional research
    - Late effects clinic series in Nottingham suggest wider applications & benefits
- New Interventional Procedure Committee (NIPC)
  - Submission pending
  - Stakeholder consensus
  - NHS Reimbursement code application available

- Proposal for 2 units @ CXH
  - Provided by 'THOR' *cost free for 1 year* 
    - supporting business case to fund
      - Approx £15, 000/unit
      - Annual service costs
      - Anticipate cost benefits :
        - QOL benefits for patients
        - Fewer admissions
        - Reduced medication costs & RIG insertions
        - Pertinent for Gynae, anal or anticipated severe skin toxicity
        - ?Peri-surgical potential
  - Allows operational logistics to be explored

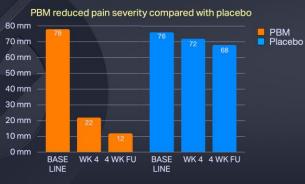
### **PBM APPLICATIONS IN PAIN MANAGEMENT**

#### POST OP OPIOIDS

#### **PBM Reduces Pethidine/Meperidine Use** in Tibial Fracture Surgery Patients



Knee Osteoarthritis Decreased pain and Increased cartilage growth

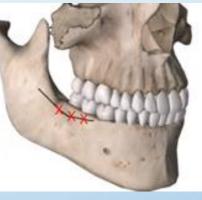


**OA KNEE** 

Pain intensity VAS score of active and placebo PBM

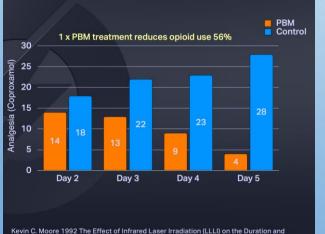


 IMPROVEMENT for Glenohumeral Joint Disease and Rotator Cuff Disease Shoulder pain. BMJ Clin Evid 2010 Shoulder pain of any duration can be effectively treated with PBM Yu 2021 Noninvasive management of soft tissue disorders of the shoulder: A clinical practice guideline from the Ontario Protocol for European Journal of Pai Traffic Injury Management (OPTIMa) collaboration.



#### TOOTH EXTRACTION **ANAESTHESIA**

With a intraoral probe 810nm 200mW dose administered to 3 points on the inferior alveolar nerve and buccal nerve, analgesia was achieved to allow painless tooth extraction over 20mins duration.

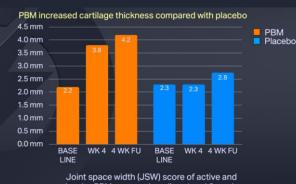


Severity of Postoperative Pain: A Double Blind Trial

**Open Cholecystectomy Post Operative Pain** PBM vs. on Demand Opioids

onpour S 2014 The effect of low-level laser on postoperative pain after tibial fracture

ry: a double-blind controlled randomized clinical trial, PMID 25237637



placebo PBM group at baseline, 4 and 8 weeks.

#### < 0.0001

Nambi G 2016 Radiological and biochemical effects (CTX-II, MMP-3, 8, and 13) of low-level laser therapy (LLLT) in chronic osteoarthritis in Al-Kharj, Saudi Arabia. PMID 27913970

## **FROZEN SHOULDER RCT**

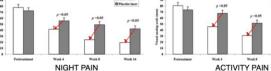


FIG. 4. VAS assessment of night pain at pretreatment, at 4 and 8 wk of treatment, and at 16 wk post-randomization for the active laser group and the placebo laser group and significance of the difference between them.

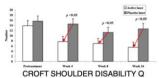


FIG. 5. VAS assessment of activity pain at pretreatment, at 4 and 8 wk of treatment, and at 16 wk post-randomization for cance of the difference between them.

the active laser group and the placebo laser group and signifi-

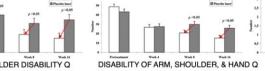
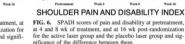


FIG. 7. Croft scores of shoulder disability at pretreatment, at 4 and 8 wk of treatment, and at 16 wk post-randomization for the active laser group and the placebo laser group and significance of the difference between them.

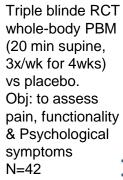


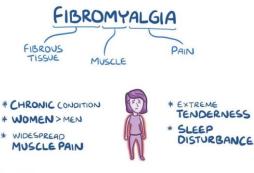
HEALTH-ASSESSMENT Q

FIG. 8. DASH scores at pretreatment, at 4 and 8 wk of treat-FIG. 9. HAQ scores at pretreatment, at 4 and 8 wk of treatment, and at 16 wk post-randomization for the active laser group ment, and at 16 wk post-randomization for the active laser group and the placebo laser group and significance of the difference and the placebo laser group and significance of the difference between them between them.

## FIBROMYALGIA

NOVOTHØR





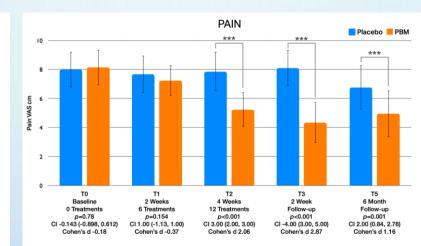
#### No cure

Affects 2% of the adult population

WHOLE-BODY PHOTOBIOMODULATION TREATMENT OF FIBROMYALGIA

A TRIPLE-BLINDED RANDOMIZED CLINICAL TRIAL

- 80% of patient on steroids
- Exercise, relaxation, and stress-reduction therapies may help



Multivariate analysis of variance (MANOVA) used to compare groups. Data are expressed as mean  $\pm$  standard deviation. \* p<0.05, \*\* p<0.01, \*\*\* p<0.001.



BACKGROUND Characterised by chronic generalised muscle pain and muscle stiffness, muscle tender points, fatigue. depression, sleep disturbance

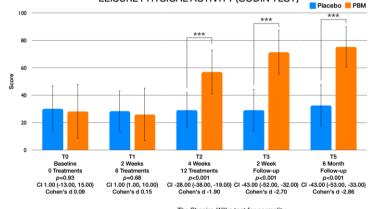
OBJECTIVE: To compare the effects of NovoTHOR\* whole-body PBM with placebo PBM on pain, functionality, and psychological symptoms in patients suffering with FM.

METHOD 42 patients, 34 - 64 years old Triple-blind RCT 20 minutes supine, minimal or no attire (underwear) 3 times a week for 4 weeks Total 12 treatments

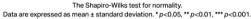
RESULTS: Highly significant

AUTHORS Navarro-Ledesma S<sup>1</sup>, Gonzalez-Muñoz A<sup>2</sup>, Carroll JD<sup>3</sup>, Burton PM<sup>3</sup> 1. Department of Physiotherapy, Faculty of Health Sciences, Campus of Melilla, University of Granada, Querol Screet, 5.52004 Melilla, Spai

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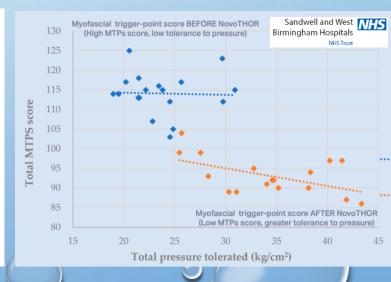
LEISURE PHYSICAL ACTIVITY (GODIN TEST)



### CHRONIC NECK PAIN SYSTEMATIC REVIEW

#### THE LANCET

- 16 RCT's
- 820 subjects
- Mean duration of symptoms 7.5 years +/-36.9 months
- Mean baseline of pain intensity 56.9mm +/-7.5mm
   RESULTS:
- PBM reduced pain intensity
- Disability
- Recurrence
- More evidence supporting the use of PBM than any other intervention including surgery, analgesics, collars or mobilisation.
- The mean pain intensity reduction over placebo 23.4mm (95%CI: 17.1 to 29.8 @ 10-22 weeks)



## What Integrative Oncology opens up...

- Patient Education & Empowerment
  - Evidence-based adjuvant therapies
    - Exercise & movement
    - Open Placebo
    - Repurposed drugs
- The power of Psychological Support
  - Friends & family/ Connection with others
  - processing past trauma
  - Existential meaning
- Wider Cultural Options
  - Acupuncture
  - Reiki/ Healing
  - Herbal / Dietetic/ Nutritional metabolic approaches
    - Aryuveda

### For clinicians the evidence available

- Emphasises the power of the Therapeutic relationship
- Requires a broader scope of education
- Invites deeper psycho-spiritual questions
  - Exploring the boundaries
    - Of death & dying
    - Use of data on 'Near death Experiences'
- Presents intriguing evidence about
  - 'Miracle patients' who defy prognosis
    - Spontaneous remissions
  - Learning from our patient's experience of living and dying.



Home



Defying Prognosis – How Integrative Oncology can teach us more about Health and the Meaning of Life

Book 🕨

Deadline to book: 14 April 2025 (Attend In Person) Deadline to book: 14 April 2025 (Attend Virtually)

BRITISH SOCIETY FOR INTEGRATIVE ONCOLOGY



CANCERTALK PODCAST



Q&A



