



- Quickly supports pain management
- Reduces inflammation
- Promotes healing
- No drugs/chemicals
- No side effects

## MATERIALS AND METHODS

In the last decade, a new class of health-supportive products has been developed by TE Technologies. These products are **imprinted with Extremely Low Electro-Magnetic Frequencies (ELEMf)**, and have no medication.

5 Minute Relief Patches (5MRP) are passively doped semiconductors, have no electrical supply, and are activated by the Biofield of the body when in contact with the skin.

**Skin acts as a capacitor.**

ELEMf is transmitted through the connective tissue of the body.

**5MRP support normal body homeostasis and pain modulation.** They should be applied to corresponding acupuncture points, acupuncture meridians, or affected areas of the body.

Lasting from two days to about a week, they don't fall off and cannot be felt by the wearer.

They can be worn in the water: bathing or swimming will not damage them.

## PHASE I STUDY - SAFETY

Missouri State University (MSU) Center for Biomedical and Life Science conducted a safety study. This concluded in 2015 that 5MRP are **without side effects and may enhance surgical wound healing.**<sup>1</sup>

## PHASE I STUDY - MODE OF ACTION

We postulated that ELEMf blend from the patches will resonate with the specific ELEMf of the protoplasm thereby modulating pain threshold.

**"Conclusions from Studies on Tuning Element 5 Minute Relief Patches' (TERP) Influence on Pain Through Ion Channels as Predicted by the Resonant Recognition Model (RRM)**

**Characteristic frequency** for pain-related sodium ion channel opening and closing function is  $f_{n1}=0.1465$ . This numerical RRM frequency relates to electro-magnetic wavelength  $\lambda=1372nm$ .

**Characteristic frequency** for pain-related calcium ion channel opening and closing function is  $f_{c2}=0.1021$ . This numerical RRM frequency relates to electro-magnetic wavelength  $\lambda=1968nm$ .

Thus, Titanium, Gold, or any other conductive particles in the TERP patches, that are in a diameter of about  $D\lambda=1400nm$ ,  $D\lambda/2=700nm$ , and  $D\lambda/4=350nm$ , can resonate with pain-related sodium ion channels, influence their opening and closing function and consequently influence pain transmission along the nerve (axon).<sup>2</sup>

## PHASE II CLINICAL STUDY

We evaluated 5MRP as an adjunct support in postsurgical pain management in a **double-blind study** for seven first postoperative days.

**20 patients undergoing abdominal hysterectomy and abdominoplasty:**

**Group1:** 10 patients were treated with 5MRP as an adjunct to standard postoperative opioid medication, and

**Group2:** 10 patients were treated only with standard postoperative opioid medication



- Each patient in both groups received postsurgical Rx for 40 pills of Oxycodone/Acetaminophen 10/325 mg.
- We measured two parameters:
  - The pain was recorded by the patient, using the pain assessment scale from The National Initiative on Pain Control (Won-Baker algorithm scale 0 to 10), every 8 hours.
  - The quantity of opioid medication used by patients was recorded every 8 hours daily and summarized after seven days.
- Each patient in both groups received post

**Group 1 Results (with 5MRP):** Pain scale was never reported over 5 in the 7-day period, and opioid usage was less than 10 pills (25%).

**Group 2 Results (no patch):** Pain scale averaged 8 to 10 and use of opioids was 40+ (100%).

**...Our study concluded that ELEMf in 5MRP increased pain tolerance thresholds in postsurgical pain management thus requiring significant reductions (75%) in usage of opioid medications.**<sup>3</sup>

Outside of the above study IRB protocol, more than **100 patients were treated with standard (Oxycodone/Acetaminophen 10/325 mg) Rx post major abdominal gynecological surgeries utilizing supportive 5MRP.**

Over 80% of patient use less than 10 pills in a 7-day period, a significant decrease in comparison to patients without 5MRP that averaged 100% use of at least 40 pills.

## CONCLUSION

We believe that 5MRP are NOVEL effective supportive modalities in pain modulation and can significantly **decrease use of opioids in pain management.**<sup>3</sup>

The same principle of action is opening doors to a wide variety of new products with different frequencies and applications in promoting health and wellbeing.<sup>19</sup>

Although results are promising, further studies on large scale are warranted.

## DISCUSSION

- What Thomas Huxley stated about 150 years ago still rings true today: "every living cell is consisted of protoplasm which is the physical basis of life"<sup>4</sup>
- We postulate that the supportive ELEMFM emitted by 5MRP provides the correct frequency information and promotes healthy protoplasm with high energy and low entropy in the cell resting living state.<sup>5</sup>
- In the quantum physics Standard Model Theory all the know types of matter and forces are described as quantum fields. They inter-react with each other not directly, but by inter-reacting with intermediary force fields such as quantum electromagnetic field, the physical aspect of which we call photon, and in living organisms, a biophoton.
- Biophoton induced energy is coherent and nonlinear.<sup>6</sup>
- Internally this electromagnetism is created by quantum fields of atomic action in the protoplasm caused by the piezoelectric capacity of connective tissue and cytoskeleton.<sup>7</sup> It is being created all the time in our body by crystals in collagen.
- They merge with external energy fields to form a Biofield.<sup>8</sup>
- The Biofield is defined as: "A massless field, not necessarily electro-magnetic, that surrounds and permeates living bodies and affects the body."
- In 1992 the term Biofield was accepted into the US as a medical Subject Heading as the National Library of Medicine.
- The Biofield can be studied scientifically with the advent of objective monitoring instruments: the Electronic Muscle Tester, Galvanic Skin Response instruments<sup>9</sup>, and most accurately by the Bio-Well cameras.<sup>10</sup>
- Biological systems possess the ability to create and utilize nonlinear coherent oscillation and respond to external oscillation.
- Biofield changes are measurable<sup>10</sup> before any pathophysiological changes occur and can accurately predict upcoming pathophysiological processes.<sup>11</sup>
- Application of certain frequencies by frequency generating devices (such as 5MRP) produces electro-magnetic resonance within cytoskeleton cellular structures<sup>12</sup> to respond to pain stimuli within pain receptors thus facilitating pain modulation.

**This can be studied using the Resonant Recognition Model (RRM).** "RRM can be used as a universal tool in predicting protein, RNA, and DNA electromagnetic resonances in the wide frequency range. Keeping in mind that earlier predictions with tubulin molecules have been experimentally proved, the RRM could be used as a powerful universal method for predicting the electro-magnetic resonances in biological macromolecules that could be used in experimental planning and in conjunction with experiments to minimize time and expenditure in exploring such complex macromolecular systems."<sup>13 14</sup>

In Ling's Association-Introduction (AI) hypothesis the weak modulation of Hertzian Energy (ELEMFM) activates selective absorption of K<sup>+</sup> over Na<sup>+</sup> and allows ATP in the cell when exposed to ELEMFM to resonate, activating RNA and DNA, restoring normal homeostasis.<sup>13 15</sup>

Stochastic resonance enables this action.<sup>13 16</sup>

Water molecules are the base of protoplasm in the cells and in the connective tissue.

Exposed to ELEMFM those molecules are energized and build an "ordered Exclusion Zone (EZ)."<sup>14</sup>

Water in living organisms' tissue is structured.

EZ requires electromagnetic energy and looks like multiple strands of pearls twisted together.<sup>15</sup>

Water in living organisms' tissue is in 4th phase of water,<sup>14</sup> also known as structured water. This structured water facilitates stochastic resonance thus inducing amplification of ELEMFM.

Amplified ELEMFM from patches resonates with Na<sup>+</sup> and Ca<sup>+</sup> ion channels, activating ATP, RNA and DNA<sup>16</sup>, following the principal of RRM<sup>17</sup> thus modulating a pain threshold.

Mai Wan-Ho stats: "Water is central to the action of quantum molecular machines... water is the means, medium and message life."<sup>18</sup>

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\*This statement was not evaluated by FDA

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