

# Investigation into the Effectiveness of coMra-Therapy in the Treatment of Post Menopausal Osteoporosis: A Case Study

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## ABSTRACT

Osteoporosis is a serious metabolic bone disorder that increases the likelihood of bone fractures and affects the lives of a large percentage of the aging population, with post menopausal type Osteoporosis being the most common. The purpose of this case study was to investigate the effectiveness of **coMra-Therapy** in the treatment of post menopausal Osteoporosis. The study participant treated herself at home over an 11 month period using **coMra-Therapy**, (Coherent Multi Radiancance Therapy) according to the treatment guide. **CoMra-Therapy** combines low level laser therapy, magnetic therapy, coloured light therapy and ultrasound therapy in one device called the Delta low level laser. Bone density scans were taken at 11 months apart and there was a statistically significant increase in bone mass density reported between scans in both the total hip of +4.7% and +3.6% in the lumbar spine, while over the same period, according to the calculated rate of bone loss, it was anticipated that there would be a further loss of bone mass between -1.3 and -1.5%. These results indicate that **coMra-Therapy** is a safe and viable treatment method for post menopausal osteoporosis in humans that gives individuals the ability to take a more active role in the improvement and maintenance of their own health.

## INTRODUCTION

Osteoporosis is a serious metabolic bone disorder that increases the likelihood of bone fractures. Post menopausal osteoporosis in women is the most common type, affecting about 30% of all women. [1, pg.40] It is estimated that over 44 million people suffer from osteoporosis in the U.S. alone, or 55 percent of the people 50 years of age and older. Nearly 50% of patients with osteoporotic hip fractures never fully recover the mobility and independence they previously had, and an additional 25% require a long-term nursing facility or home care. [1, pg.2]

Simply put, osteoporosis is a condition in which the bones become more porous and less dense, leading to decrease of bone strength. This increases a person's risk of breaking a bone from normally innocuous events, like a minor fall, or even sneezing.

[\[general reading\]](#)

Bones are generally classified into three categories [1, pg.30]:

- Normal - average amount of porosity or density;
- Osteopenic - increased porosity or decreased density with some increased risk of fracture;
- Osteoporotic - further increased porosity or decreased density and a higher degree of fracture risk.

The most common test used to determine the porosity or density of an individual's bones is the dual energy x-ray absorptiometry (DXA). [2]

### **Bone Health and Osteoporosis**

In a very general sense certain cells within our bones are continuously busy making new bone while others are continuously busy taking away old bone. This process is held in balance by the body. Making new bone is known as *formation* and taking away old bone is known as *resorption*. Both are part of a necessary process called bone remodeling. The cells primarily involved in bone formation are called osteo-blasts, while the cells primarily involved in the bone resorption are called osteo-clasts. [3]

Normally in the remodeling process, formation and resorption of bone are held in balance, or homeostasis, by a number of bodily processes. However, with osteoporotic conditions the amount of bone formed is not enough to keep up with the amount of bone resorbed. Thus bones become more porous. The resulting decrease in bone mass leads to increased risk of fracture.[1, pg.30]

The bodily systems involved in bone homeostasis include the central and peripheral nervous systems, the endocrine system, as well as the immune and digestive systems. [4-6] Detailed discussion of the large number of cellular, chemical, and biological processes involved in bone homeostasis and osteoporosis go far beyond the scope of this article. The cause of osteoporosis remains unknown by current allopathic medical and scientific standards.

[\[detailed video tour of bones at a cellular level\]](#)

### **Therapies For Osteoporosis**

The most typical therapies recommended for the treatment of osteoporosis by various Osteoporosis Foundations throughout the world (e.g. the National Osteoporosis Foundation in the U.S.) are drug therapies. These drug therapies aim at artificially blocking or activating a specific aspect of the bone remodeling process. One example is biophosphonates, which are aimed at artificially blocking the action of osteoclasts involved in bone resorption. [1, pg.127]

However, a significant number of potential side effects are recognised for these medications. See Table 1 for examples. [7-14]

**Table 1: List of some WARNINGS and SIDE EFFECTS given to people who take drugs to treat osteoporosis:**

<p><b>----Warning Labels----</b></p> <p><b>----DEATH FROM STROKE----</b></p> <p><b>----PULMONARY EMBOLISM----</b></p> <p><b>----OSTEOSARCOMA (CANCER)----</b></p> <p><b>----DEEP VEIN THROMBOSIS----</b></p>		
<p><b>“Call your doctor at once if you have a serious side effect such as:”</b></p>		
<ul style="list-style-type: none"> <li>● Chest pain or heavy feeling, pain spreading to the arm or shoulder, sweating, general ill feeling.</li> <li>● Pain or swelling in your lower leg.</li> <li>● Pain, swelling, or tenderness in your stomach.</li> <li>● Burning pain in your upper stomach, or coughing up blood.</li> <li>● Nausea, vomiting, constipation, and muscle weakness.</li> <li>● Breast pain, tenderness, or lump.</li> <li>● Pain or swelling in one or both legs.</li> <li>● Severe pain in your lower back.</li> <li>● Pain or burning under the ribs or in the back.</li> <li>● Painful or difficult swallowing.</li> <li>● Pain or burning when you urinate.</li> <li>● New or unusual pain in your thigh or hip.</li> <li>● Jaw pain, numbness, or swelling.</li> <li>● Severe joint, bone, or muscle pain.</li> </ul>	<ul style="list-style-type: none"> <li>● Bone fracture.</li> <li>● Unusual vaginal bleeding.</li> <li>● Swelling in your hands, ankles, or feet.</li> <li>● A red, blistering, peeling skin rash.</li> <li>● Sudden cough, wheezing, rapid breathing, fast heart rate.</li> <li>● Sudden numbness or weakness, especially on one side of the body.</li> <li>● Feeling light-headed or fainting every time you inject this medicine.</li> <li>● Urinating less than usual or not at all.</li> <li>● Swelling, weight gain, feeling short of breath.</li> <li>● Muscle spasms, numb or tingly feelings (especially around your mouth).</li> <li>● Pale skin, easy bruising, unusual weakness.</li> <li>● Bronchospasm (wheezing, chest tightness, trouble breathing).</li> </ul>	<ul style="list-style-type: none"> <li>● Severe diarrhea.</li> <li>● Severe or new or worsening heartburn</li> <li>● Jaundice (yellowing of the skin or eyes).</li> <li>● Sudden headache, confusion, problems with vision, speech, or balance.</li> <li>● Fever, chills, sore throat, body aches, flu symptoms.</li> <li>● Fast or pounding heartbeats every time you inject this medicine.</li> <li>● Problems with memory or concentration.</li> <li>● Drowsiness, confusion, mood changes, increased thirst, loss of appetite.</li> <li>● Fainting.</li> <li>● Migraine headache.</li> <li>● Feeling light-headed.</li> <li>● Feeling like you might pass out.</li> <li>● Muscle stiffness.</li> </ul>

## **Is there a safe alternative for treating osteoporosis?**

45 years ago doctors and clinicians began to experiment and to treat people using low level laser therapy, with excellent results. [15,16] Light therapies had been used long before this, going as far back as 30 centuries in ancient texts and records [17], and in addition ultrasound [18, 19] and magnetism [20, 21] also have a history in the treatment of different conditions. The bodily processes involved in these therapies are still being understood, but regardless of our knowledge of the mechanisms and processes involved, we still see positive outcomes in case after case [22-27], with over 130 randomised clinical trials up to 2010 alone [28], and their applications in chronic diseases continue to grow. [29-34]

One such developing area has to do with bone and bone-related conditions. In the 1980s and 1990s the LLLT community reported very good bone mending results using laser therapy. [35] This led to further discoveries during the early 2000s and onwards. [36, 37] To date LLLT has been used in numerous bone and bone-related applications, such as post fracture repair [38-40], bone grafting [41, 42] and implants into bone [43, 44]. LLLT also has been shown to speed the healing process and improve the quality of the healing, both in strength and evenness, even when bone healing compounds or biomaterials were used. [37,45-50] LLLT has also been used to mitigate the side effects of drugs used to treat bones, as well as associated pain.[51-54] Additionally, there are ongoing studies into the effects of LLLT on the cellular and molecular level in the bone remodeling process.[55-58]

When we look at Osteoporosis itself there are various studies into the effects of LLLT treatment, both directly on osteoporosis and indirectly on osteoporotic related conditions [59-67] – all with very positive outcomes. One of the studies in particular, by Kulyakovich (2007) in the Ukraine, demonstrated the effects of light, magnetism, and microwaves, in the improvement of osteoporosis in 180 cases. All 180 cases showed a significant increase in bone mass density with no post treatment fractures in a five year period. His treatment methods are based on treating the body as a whole rather than any specific causative agent. [68]

Not only has LLLT been found effective in the treatment of bone, so too have ultrasound and magnetic therapies. Ultrasound therapy has been found beneficial in bone cellular processes [69, 70] in the healing of fractures both normal [71] and non-union. [18, 72]

Magnetic therapy has been found beneficial for treating bone fractures [73] as well as for improving bone mass densities including in osteoporotic conditions. [74-77]

In addition to these therapies being used on their own, they have also been used in various combinations in the treatment of bone – all with beneficial results. [78-80] In conjunction with all of this there is also a vast body of literature, only in Russian, on the effectiveness of Magnetic Infrared Laser therapy (MIL therapy).

## **CoMra-Therapy for Osteoporosis**

Radiant Life Technologies introduced **coMra-Therapy** as a new breakthrough in the world of medicine. It combines already established therapies; LLLT [22-27, 29-32, 81-85], coloured light therapy [87-91], magnetic therapy [20, 21, 73-77, 92-94] and ultrasound therapy [18, 19, 69-72, 95-97] into one. **CoMra-Therapy** is employed via the Delta low level laser. **CoMra-Therapy** addresses the organism as a whole and thus is not specifically directed toward any one causative agent. It can therefore be used to treat a wide array of medical diseases and conditions.

Although Osteoporosis is a disease that primarily affects the bones, there are numerous bodily systems involved, and therefore for treatment to be effective it needs to address both bone health directly, and also the overall body homeostasis that influences bone health. This case study was undertaken to investigate the effectiveness of **coMra-Therapy** in the treatment of Osteoporosis, with treatment directed at both the bones directly as well as other bodily systems influencing bone health.

## **CASE DESCRIPTION**

- Female, 63 years old
- Scoliosis in lower spine for over 50 years; resulting in tilted hips and uneven leg lengths with majority of weight on right leg. Over time right knee splayed laterally outward to compensate for uneven leg lengths.
- Early onset menopause at age 38.
- Informed by her doctor in early 50's that she had osteopenia.
- Arthritic pain began at approximately age 56 with pain in lower spine, both hips, right knee.
- Total hip replacement (left side) 2007 due to continuous pain and immobility.
- Diagnosed with Osteoporosis in 2011 via Bone Density Scan.
- Doctor recommended biophosphonates to treat the osteoporosis and she declined.
- Before starting coMra-Therapy:
  - Pain in lower spine, right hip, right knee.
  - General muscle weakness and deterioration in both legs.

## **TREATMENTS**

The participant began using **coMra-Therapy** only periodically beginning November 2010, not specifically for osteoporosis, but for osteoarthritic pain and the weakness coupled with decreasing mobility. At start of treatment she reported experiencing difficulty managing daily activities such as household chores, stairs, gardening and social activities. In March 2011 she was diagnosed with osteoporosis via a DXA scan. Subsequently she began using the Delta Laser more frequently and specifically in an effort to combat this condition. She also wanted to avoid a second hip replacement if possible.

She administered **coMra-Therapy** on herself with the Delta Laser at home as recommended for her condition. Up until the point of diagnosis of osteoporosis she used it 1 to 3 times per week. After diagnosis in 2011 she increased treatments to 2 to 4 times per week.

As recommended in the **coMra-Therapy** User Guide, the following treatment programs were followed:

**Traumatology 1** This program includes treatment points for:

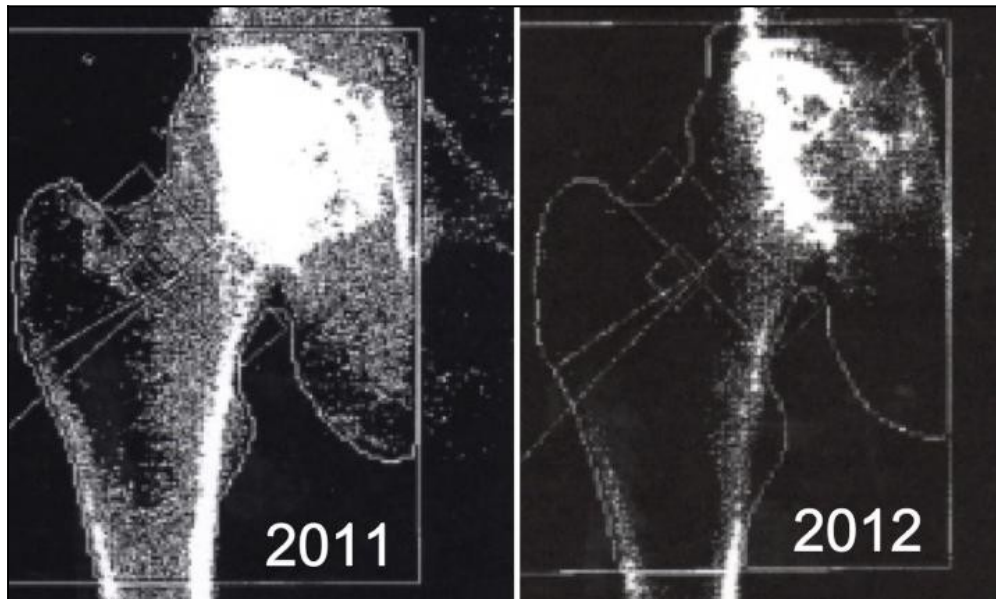
- **Spinal column** - from coccyx to occiput, at 10 cm intervals
- **Spinal column**- along both sides of the spinal column through long extensors at 10 cm intervals
- **Heart**
- **Liver**
- **Pancreas**
- **Spleen**

**Traumatology 9** for the right hip.

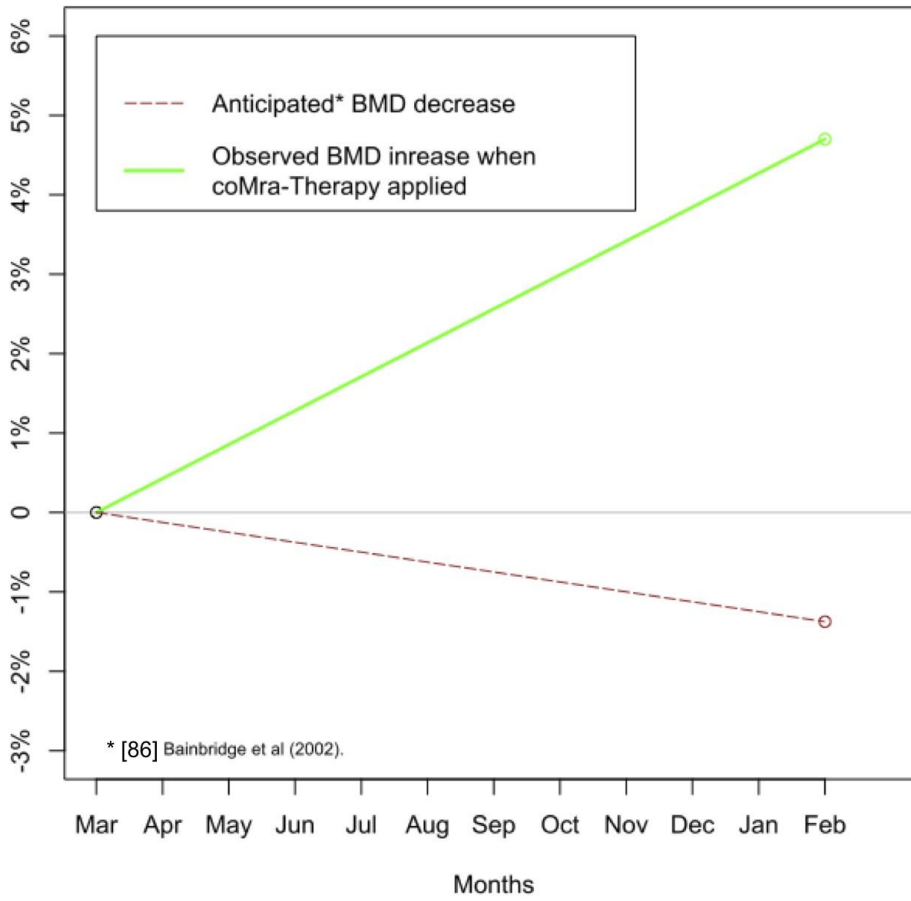
**Traumatology 10** for the right knee.

## RESULTS

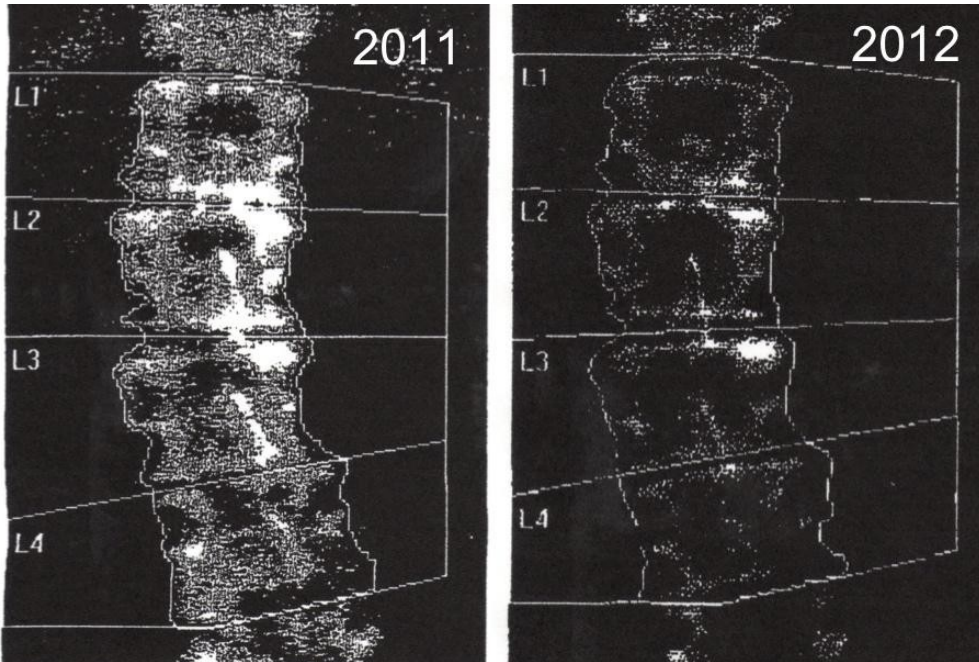
DXA scans performed in March 2011 and again in February 2012 indicating changes in condition over the 11 month period.



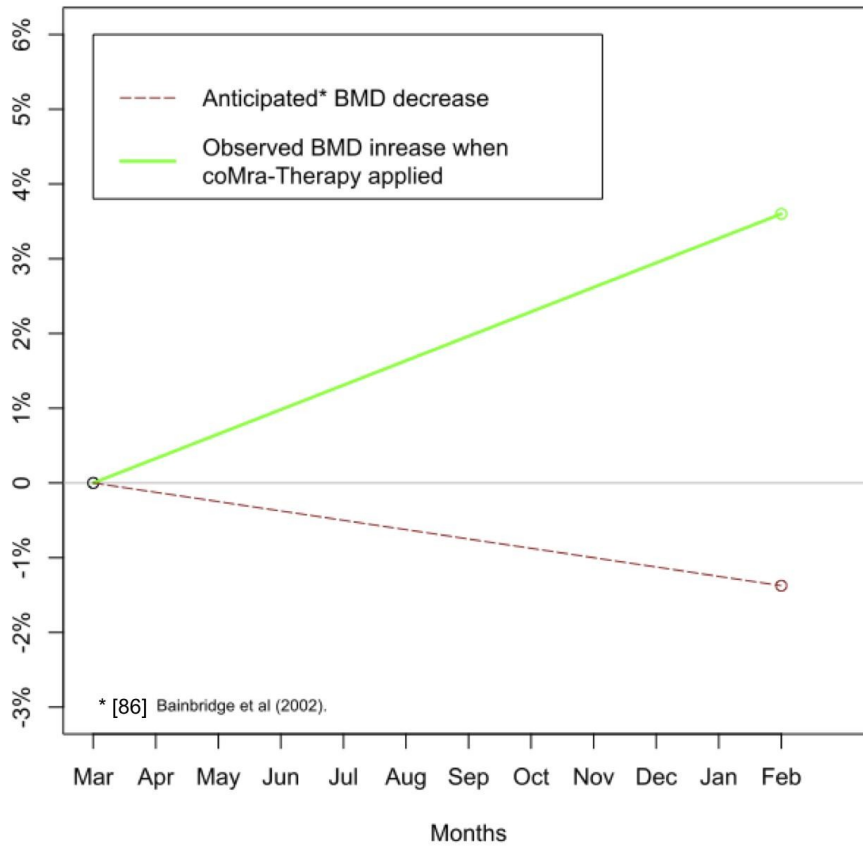
### Relative Right Hip Total BMD



- There has been a statistically significant increase in bone mass density of 4.7% total right hip over an 11 month period.



**Relative Lumbar Spine Total BMD**





- There has been a statistically significant increase in bone mass density of 3.6% in lumbar region over an 11 month period.

Participant reported increased mobility and decreased pain.

Using **coMra-Therapy** on ongoing basis to alleviate arthritic pain.

## DISCUSSION

The findings of this case study indicate that **coMra-Therapy** has a place as an effective treatment method for post menopausal osteoporosis. Treatment can be performed at home by individuals, without any drug interventions, thus providing individuals the opportunity to take a far more proactive role in their own health and well-being.

DXA test results confirm that this treatment method produced a statistically significant increase in bone mass density in both hip (4.7% increase) and back (3.6% increase) of a 63 year old female with post menopausal osteoporosis. Given that the expected rate of post- menopausal bone loss is calculated to be -1.3 to -1.5% at the lumbar spine and -1.4% at the femoral neck per year in post menopausal osteoporosis [86], this statistically significant increase in BMD, further demonstrates the improvement. It is also important to note that there were no harmful side effects.

These findings were similar to those of Kulyokovych and others, which also showed an increase in bone mass density through "magneto-laser-microwave" and other treatment methods of osteoporotic conditions [59, 65, 66, 68, 75-77]. However, Kulyokovich's system is complex and can only be done in a clinical setting, whereas **coMra-Therapy** is compact, simple and easy to use, giving individuals the ability to treat themselves at home or while on the go.

This case study also presents a possible treatment method for osteoporotic bone fractures, which are a serious consequence of osteoporosis [1, pg.2], based on the results others have obtained in osteoporotic fractures. [60-64, 67]

In summary, the results of the present study demonstrate, for the first time, the ability of **coMra-Therapy** to improve bone mass density in humans by providing energetic support to the body at a cellular level, so that it may initiate and carry out the healing process.

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