

## Healing Waves

By Margaret M. Moga, PhD

Energy healing therapies, such as Reiki, Therapeutic Touch, and Healing Touch, continue to be popular, despite the fact that the putative energy or scientific mechanism involved in energy healing is unknown. New evidence suggests that energy healing may be detectable and measurable with sensitive DC magnetometers. During hands-on healing, distant healing and Healing Touch, my colleagues and I have observed low-frequency (0 – 40 Hz) magnetic field (MF) oscillations, which are more frequent and of higher amplitude during the healing session and immediately after the session, as compared to non-healing time periods<sup>1,2</sup>. The MF oscillations in our experiments are similar to the oscillations observed by Dr. John Zimmerman who recorded MF activity adjacent to the hand of a Therapeutic Touch practitioner in a magnetic field-free environment<sup>3</sup>. Magnetic field oscillations have also been observed in the vicinity of Reiki and Qigong practitioners<sup>4,5</sup>.

How do we measure MF activity during an energy healing session? For human subjects, we position magnetometers on both sides of the client about 2 feet from the massage table, so that the healer can move freely around the table during the session. The greatest signal is obtained when the magnetometers are near the heart region of the client. The heart's magnetic field may be detected 5 feet from the human body using a sensitive SQUID magnetometer<sup>6</sup>. For animal subjects, such as mice, we position the magnetometers near the plastic animal cages. In both cases, we measure MF near the subject to be healed, which is where the healer is focusing their attention and where the signal is most reliable<sup>1</sup>.

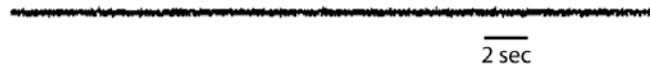
What do the MF oscillations look like? In healing environments, the background MF activity (0 – 40Hz) is typically low amplitude and asynchronous (Figure 1.A). During healing sessions, the MF oscillations are not random, but are organized in distinct waves. In each healing wave, oscillations begin to appear, with frequencies as high as 50Hz. Next, the

amplitude of the MF oscillations increases (Figure 1-B). At peak amplitude, the MF oscillations slow dramatically to 0.2Hz (Figure 1-C), and then the wave reverses, with the MF oscillations returning to 30 – 50Hz and the amplitude returning to background levels. The ‘broad-spectrum’ of frequencies in each wave is visible in the slowing of the wave at peak amplitude (Figure 1-D). Broad-spectrum waves have greater data capacity than single-frequency waves, making these waves ideal carriers for complex biological information.

Our recent research has focused on the MF changes and healing waves that occur during Healing Touch (HT), an energy healing therapy developed by nurses. HT consists of standardized interventions involving light touch and hand movements through the biofield of the client, with the overall goal of clearing and balancing the energies of the client’s body<sup>7</sup>. In our study of 26 HT sessions<sup>2</sup>, the amplitude of the MF oscillations was greatest when, 1) the client presented with an emotional complaint, such as grief, anxiety, stress or trauma, and/or 2)

Figure 1. Examples of MF activity during energy healing

A. Quiet background activity (0 - 40 Hz)



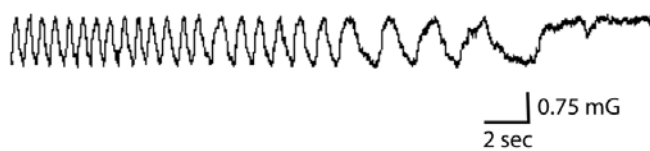
B. Increased amplitude of MF oscillations during HT session



C. Maximum amplitude with slowing of MF oscillations



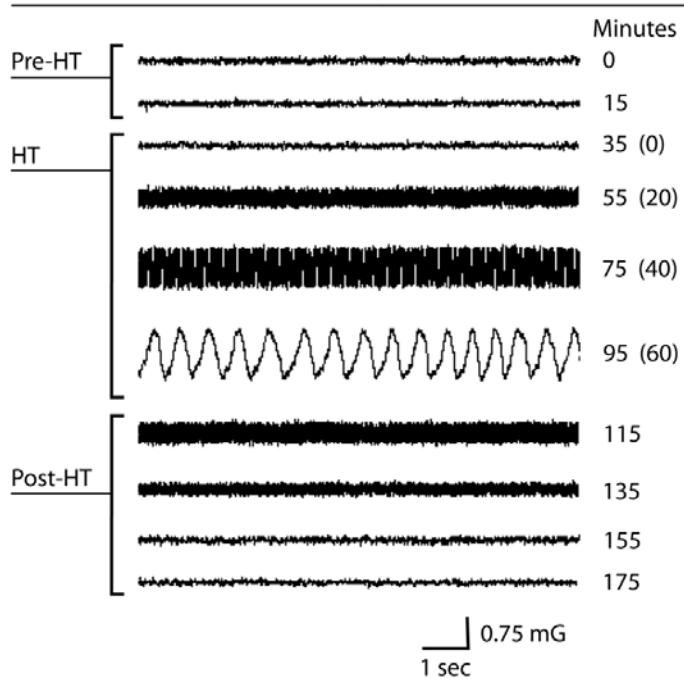
D. Slowing of MF oscillations in greater detail



the healer felt congestion or heaviness in the biofield of the client. In a representative case with high-amplitude MF oscillations (Figure 2), the client presented with symptoms of grief and loss following the recent death of a close friend. The HT practitioners noted heaviness in this client's biofield, particularly around the head region, which cleared with the HT Magnetic Clearing intervention.

In Figure 2, Pre-HT is the time period before the HT session, and post-HT, the time period following the session. Each trace is a 10-second snapshot of MF activity. Minutes into the continuous MF recording are noted on the right, with minutes into the HT session noted in parentheses. The HT

Figure 2. Healing Touch Therapy



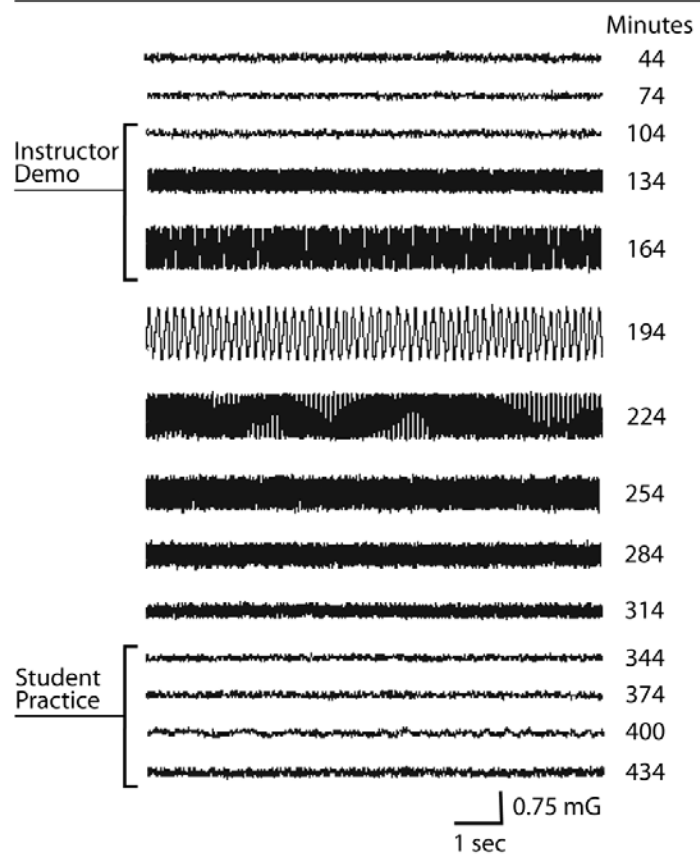
treatment began at 35 minutes and ended at 107 minutes. The MF activity before the HT session (0 and 15 minutes in Figure 2) was quiet with no MF oscillations. Note the increase in oscillatory activity during the Healing Touch session at 55 and 75 minutes. The slower frequencies in the center of the wave are apparent at 95 minutes (60 minutes into the HT session). MF activity slowly returned to background levels during the Post-HT period. A similar pattern of MF activity was observed in 21 of the 26 HT sessions, with increased MF activity generated during the HT session continuing into the post-HT period.

A connection between the emotions and the biofield has been noted by many healers and clairvoyants, who have described different colors in the 'aura' or biofield, depending on the emotional-mental state of the individual. Hunt<sup>8</sup> noted a correspondence between colors in the biofield described by a clairvoyant and frequencies in the 250 – 2000 Hz range. In our experiments, the extra low-frequency (0.2 – 60Hz) MF waves seem more closely associated with 'emotional releases', rather than with specific emotions. HT interventions, such as Magnetic Clearing, Chelation and Deep Cleansing, are used to release emotions such as fear, grief and worry, but also to clear congestion from the biofield. Based on our work and others, we propose a simple psychoenergetic model of disease and healing: Trauma or persistent thoughts/emotions cause congestion in the biofield, leading to disease of the physical body<sup>9</sup>. Healer-assisted removal of biofield congestion facilitates emotional release, which reorganizes the biofield and heals the physical body<sup>8</sup>. The MF oscillations associated with this process may act directly on cells in the physical body to enhance healing<sup>3</sup>.

We have also observed these 'healing waves' in group situations, such as Tai Chi classes, HT classes, and a spiritual healing retreat. Recently, we recorded MF activity during a Healing Touch Level 2 class (Figure 3). HT education consists of 5 class levels, so the students in this class were mostly beginners. Magnetometers were placed in two different locations in the large classroom: one magnetometer was located near the massage tables where the students practiced the HT interventions, and the other magnetometer was positioned near the circle of chairs where the instructor gave lectures and demonstrated most of the techniques. Interestingly, whenever the experienced HT practitioner-instructor gave a hands-on demonstration of a HT intervention, the MF activity resembled an actual HT session (Figure 3).

In Figure 3, all of the 10-second MF traces are from the magnetometer located near the massage tables. The HT practitioner-instructor began her demonstration of back techniques at 104 minutes in the day's recording. After the demonstration, the class moved back to the other side of the room for a lecture (194 minutes), and then left the room for lunch (254 minutes), and returned for another lecture in the circle (314 minutes),

Figure 3. Healing Touch Class Level 2



with the students returning to the tables area at 344 minutes to practice the back techniques themselves. In Figure 3, note the increase in amplitude of the MF oscillations during the demonstration by the instructor (134 and 154 minutes). The MF oscillations reached peak amplitude shortly after the demonstration was over, returning to background levels after about 2 hours. In contrast, MF activity was relatively quiet during student practice (344 – 434 minutes). Additional training may be needed in order to produce MF oscillations of high-amplitude. The long time-course of the MF oscillations associated with the demonstration, almost 3-1/2 hours, could be due to the experience of the instructor and/or to a 'group effect' involving the students and instructor.

A group effect, where an enhanced effect is observed when members of a group work together, has been observed in the classroom, in Tai Chi and Qigong classes, in support groups, in meditation, and in music and business<sup>10,11,12</sup>. Bache<sup>11</sup> has noted that strong group fields are created when there is, “collective intention focused in an emotionally engaging group project... of sustained duration”. In our studies of MF oscillations during either individual or group activities, we have observed that ‘sustained duration’ is very important in creating MF waves. MF oscillations in HT sessions begin about 15-20 minutes into the session. Sustained Tai Chi practice in a week-long workshop produces 1 – 2 MF waves per class, similar to an HT session, but of lower amplitude. In contrast, in a group mindfulness meditation, short meditations of 10 minutes in length did not produce any MF oscillations. The focused attention of the students or group members may also be important. The students in the HT class were particularly interested in the demonstration of back techniques, and their keen attention may have enhanced the MF activity during the HT class. A question to be explored is whether teachers without training in energy healing are able to create ‘class fields’ with measurable MF oscillations.

In summary, we have observed significant changes in low-frequency (0 – 40Hz) MF activity during energy healing and other bioenergetic activities. These changes seem to reflect an underlying energetic release process, which may be important in our understanding of the scientific mechanism of energy healing.

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