

## Chapter 1 - The Body Antenna

Excerpt 4 from [The Sage Age – Blending Science with Intuitive Wisdom](#)

### Antennas and the Physical Body

Most folks think of antennas as long metal rods extruding from radios or as “rabbit ears” on top of a television set. In its broadest definition, an antenna is anything that can carry an electromagnetic current. These conductors include wire, metal poles and even the human body. When a physical conductor carries a current, an invisible field of electromagnetic energy also radiates around it. The higher the current, the further the field radiates into space. The spectrum of light contains all forms of electromagnetic radiation including visible light, radio waves and on up the scale to gamma radiation. Each band is differentiated by a range of frequencies. The full light spectrum itself is discussed further in Chapter 7. Most intuitives believe that the light spectrum extends well beyond the range of physical measurement. In fact, that is the part of the spectrum they work with most often.

Citizen Band and Ham radios can both transmit and receive signals making them a transceiver. They typically employ a long, straight vertical antenna. This is called a dipole antenna. Other common antenna types are horizontal and circular. These descriptions indicate the antenna’s orientation to the Earth plane. This position determines what is known as the “polarization” of the antenna. The polarization affects what type of signals the radio can transmit and receive. For maximum effect, many antennas are configured to transceive both vertical and horizontal signals.

Many parts of the physical body are sensitive to electromagnetic (EM) radiation. Several parts of the body, including the bones and intestines contain a special type of crystal that converts mechanical energy into electrical energy. (We’ll cover how each part of the physical body responds to EM stimuli a bit later, but for now we want to give a general comparison of basic ideas.) How these sensitive body parts are positioned in relation to the Earth plane affect the type of signals they receive. Ritual body postures change the polarization of the body antenna with respect to the Earth plane.

The most basic type of vertical antenna is called a dipole. It’s basically a metal pole with a wire attached at the center. It’s called a dipole, meaning two poles, because each end transmits the signal fed by the wire attached at the center. The transmission signal radiates outward from the center of the pole toward the two ends.

Now, let’s compare this to the physical body. For a standing person, the center point of the body is in the area of the intestines. (Although this may not seem like the physical center of height, as far as energy transmission, it is the mid-point. We’ll discuss why this is so in a moment.)

With an antenna, the radio frequency current is maximum at the antenna’s center and minimal at its ends. The radio frequency voltage is minimum at the antenna’s center point and

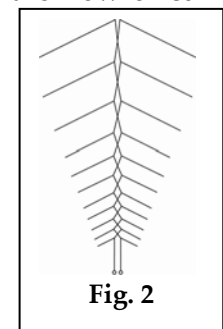
maximum at its ends. So, what does this mean? Current is the flow of electrical charge carriers. Voltage is the potential difference in charge between two points within an electrical field. The greater the voltage difference, the more the electrical charges are pushed or pulled from one point to the other. This is just like the bar ends of a magnet as it attracts or repels charges. The stronger the magnet, the greater its influence in repelling or attracting charges. In an electrical conductor, such as an antenna, the faster these charges move, the greater the flow and the higher the current, resulting in a more powerful broadcast signal.

Since the antenna has a voltage difference at each end of the pole and a high supply of current at its center point, the charges are compelled to move from the center to the ends. This is how an antenna “radiates” its energy. The human body is much the same. The head or top of the body has a positive charge. The feet have a negative charge. The area of the intestines has a high supply of current. This is how the physical body “radiates” its energy.

In the human body, the intestines are comprised of the same sort of special crystals that are in the bones, as mentioned previously. (We’ll delve further into the properties of these crystals in the next section.) The large and small intestinal tract averages about 27 feet in an adult. Think of it as part of the human antenna that is compacted in the middle of your body. The nodes, or end points, on the human body are the feet, the head and the hands. The feet and the head carry opposite charges and the hands carry opposite charges from one another. These ideas are in agreement with the mappings of acupuncture meridians. The opposite charges of the head and feet help maintain the flow of electrical current through the system. This is basically the concept of how chi moves through you as well. By keeping these nodes in balance and removing all blockages to the flow of current, health is maintained. To be clear, chi is not electrical current. It is an energy

beyond that. However, the measurement of EM radiation through the body can be a good indicator of how the flow of chi is moving.

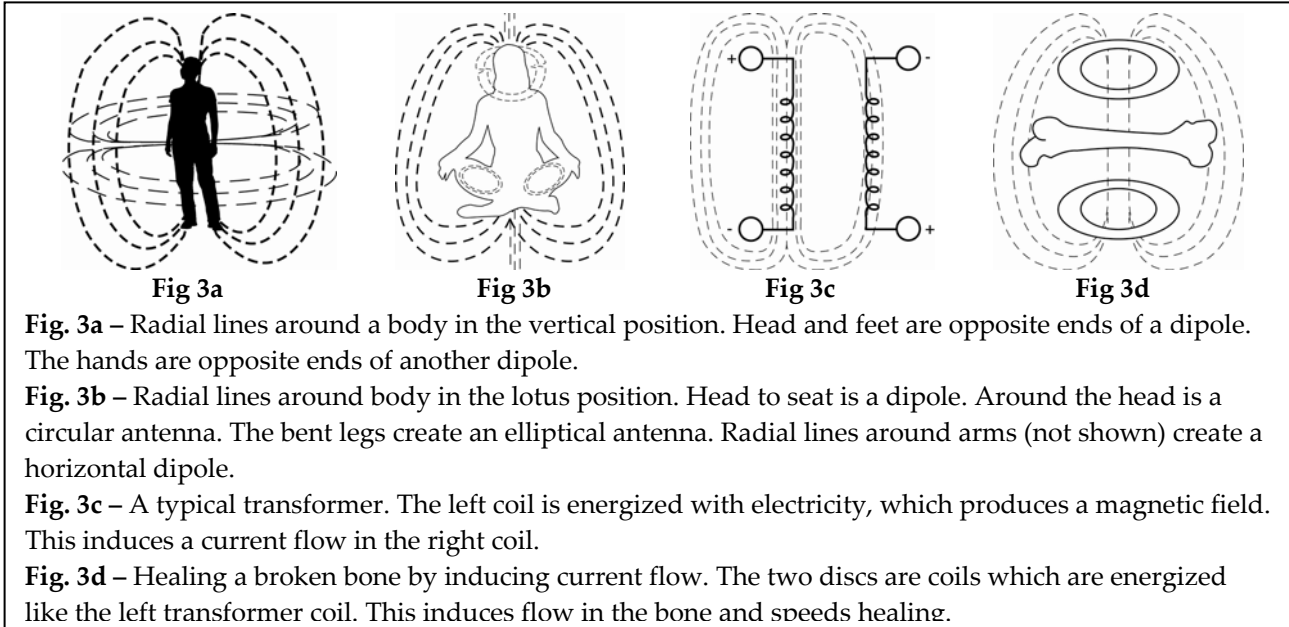
The length of the dipole antenna determines the frequency at which it resonates. Consider the design of a television antenna, the kind that used to be on the rooftops of practically every home in the 1960s. It’s called a “yagi-type” antenna (Fig. 2). It consists of several dipoles of various lengths. Each dipole is “tuned,” primarily by its length, to be resonant with a specific broadcast frequency, e.g., one dipole would receive Channel 2; another dipole would receive Channel 5, and so on. The antenna is usually installed parallel to the



ground plane of the Earth.

Positioning the body in different ritual postures aids in the reception of distinct frequencies, much like the antenna above. Bending your arm or leg changes the overall length and angle to the ground plane of the antenna system made up by your bones. When you sit in the Lotus Position to meditate, your legs take the shape of a complex horizontal antenna system that is parallel to the ground. Your trunk is in the vertical antenna position. The position of the arms creates another complex antenna system, being slightly slanted outward at the shoulder and bent back in at toward

the hands. In this position your body is set to give maximum aid in the transmission and reception of a wide range of frequencies.



In transmitting antennas with multiple dipoles, such as the yagi-type pictured previously, there is one main element to which power is directly applied called the “driven element.” All of the other dipoles are called “parasitic elements.” They receive their power through induction. This means that when the main, or driven element, resonates, the other elements are struck by those waves and begin to resonate sympathetically. When they reinforce the radiation of the main element, they are called a director. When the antenna is in a receiving mode and the parasitic elements reinforce the main element, they are called reflectors.

Placing the limbs of your body in different positions has this same effect. One of the body’s primary radiation points is in the area of the gut. The bones of the body, especially the arms and the legs, act as parasitic elements to the main element of the trunk of the body. Changing the position of the arms and legs helps the body’s antenna direct or reflect signals, depending on whether it is broadcasting or receiving.

All antennas have a resonant frequency, that is, a frequency at which they work best. Operating at this frequency puts the antenna in a state of electrical balance. This is called the center-point frequency of the antenna. As previously mentioned in the example of the yagi antenna, the physical length of each dipole determines its resonant frequency. That’s because the length of a wave traveling through free space is determined by its frequency. Therefore, the length of the antenna equals the length of the wave at which it operates or resonates best. The physical length of your body also determines the frequencies at which you operate best.

The antenna can also operate on harmonics of the wavelength, i.e., a wavelength that is one half, one quarter, one eighth...of the original wavelength. In other words, the length of the antenna does not have to equal the wavelength. The antenna length can be a harmonic of the wavelength. This is why each person can change their body position to transceive multiple frequencies. The mathematics that apply to sound wave harmonics also apply to EM wave harmonics and can be found in Chapter 7.

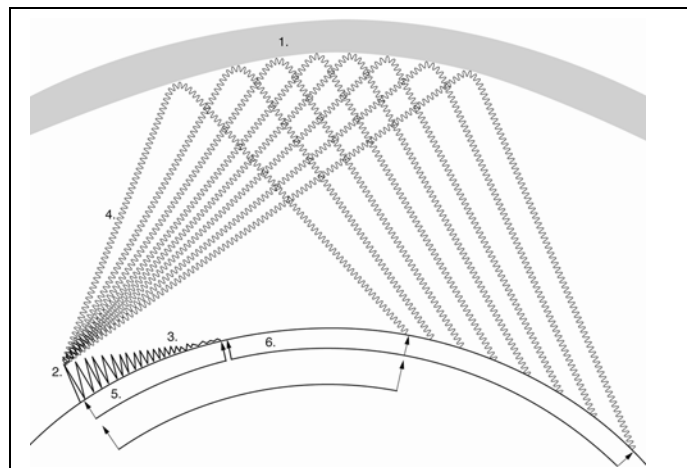
The most common antenna type is a 1/2 wave dipole. Its length is one half that of the wave's length at which it operates best. In other words, if the antenna is two meters long, it works best with a wavelength that is four meters long. Two meters is also the length of the wave's first harmonic.

It's also interesting to note that the sensitivity pattern of this antenna is in the shape of a donut, but it's not a typical donut. It's called a torus and has unique mathematical properties that are important to discovering how the human body antenna works. You can see this torus shape in the vertical radial lines around the whole body in Fig. 3a and Fig. 3b.

Most radio frequency dipole antennas are usually installed perpendicular to the ground plane. These are the very tall radio broadcast antennas you see while driving along the highway. Another common antenna type is a horizontal dipole. A horizontal antenna is parallel to the ground plane. Next, we'll explore how this polarization affects the body antenna.

Eastern-related exercises are but one example of many effective ritual body postures. The practice of kneeling or laying face down to pray is another example. In these positions the body's antenna is changed with relation to the Earth plane. Laying the body parallel in some manner to the Earth plane is an example of a horizontal antenna. In free space the antenna would still radiate in a spherical pattern but because of the semi-spherical environment, part of the signal hits the ground broadside and is absorbed or nullified, leaving the majority of the signal transmitting in a side-to-side pattern parallel with the Earth. Think of it as a line-of-sight type of transmission. For the signal to carry very far the antenna would have to be significantly raised above the ground, otherwise a high landscape feature or a building would interfere with the signal.

In the Islamic religion, the call to prayer is sung from a high tower and devotees orient themselves toward Mecca as they kneel and bow parallel to Earth. Theoretically, this places them in line-of-sight alignment with the broadcast area. It is thought that the EM type signals associated with spirituality are not bothered by any landscape obstacles.



**Fig. 4** 1. Ionosphere. 2. Broadcast antenna. 3. Line-of-sight broadcast signal. 4. Sky wave broadcast signal. 5. Near-field of antenna. 6. Skip zone.

During prayer, Muslims oscillate between horizontal and vertical positions. This change in human antenna orientation allows them to transceive different signal types. The first part of the prayer ritual is performed while in a standing position, which is akin to a vertical antenna. The

second part involves oscillating between a kneeling and a semi-prone position. The kneeling position is a combination of both vertical and horizontal antenna positions with the lower legs parallel to the ground plane and the trunk perpendicular to it. The prone position is strictly a horizontal antenna. To receive the maximum number of signals, Ham radio operators will usually orient their dipole antennas at a 45° slant. This allows reception of both vertically and horizontally transmitted signals. This slant is also the position of the body's trunk when Muslims bow from the kneeling position. The head is low and the hips are raised.

In high-powered radio broadcast waves, signals can still be received even if the broadcast station and the receiving station antennas have a different polarization, or orientation to the ground plane. This is because the transmission waves bounce up and down in angles as they travel across the globe. Although light radiates in a spherical pattern from its source, each light ray travels in a straight line. Radio waves, which are part of the light spectrum, initially radiate from the antenna in a spherical pattern, but each part of the wave travels in straight lines until the lines reach a reflective surface such as the ionosphere of the sky. When the signal hits the ionosphere it is reflected back down toward the ground at an angle. This creates what is known as a skip zone, which is an area of silence where the radio signal is too weak to receive. (See Fig. 4.)

The original broadcast signal can be received in three ways. Line-of-sight is reception of waves that come directly from the broadcast antenna in a direction that is parallel to the ground. Ground wave coverage is reception of signals carried along good soil or saltwater. Sky wave coverage is reception of waves that bounce off the ionosphere layer of the sky and is the most useful for global communications.

For the greatest reception of line-of-sight transmissions, it is best if both the antennas have the same polarization, since the signal bounces less in line-of-sight transmissions than with sky-type transmissions. This is why walkie-talkies usually work best when their antennas are pointed at an angle toward the broadcast tower. Face-to-face conversation is also like a line-of-sight transmission. One of the techniques of being a good listener in such an environment is to mimic the body posture of the other person. This ensures that both antennas are equally aligned. In fact, this technique has proven to be so psychologically powerful that it is often taught to therapists, counselors and sales people as a way to set up an atmosphere of trust and make their client feel at ease and heard.

The position of the body is not the only factor in the transceiving of certain frequencies. Attuning the mind also contributes to the process. For clarity's sake, some definitions are useful here. Intuitives consider "Mind" to be universal consciousness, "mind" to be the thoughts of an individual, and "body-mind" to be the various processing centers of the body of which one is the brain. If the body is considered as one big chemical factory, then the brain is the drug dealer. The mental discipline aspect of meditation quiets brain activity, which in turn calms the body and places it in a more coherent, receptive state. The brain, as directed by the mind, also calms the body by triggering the release of certain chemicals and hormones while inhibiting the release of others.

The technique of focusing on the breath gives the brain something to do while the body-mind, which is located all over the body in multiple processing centers, is opened and becomes more receptive to incoming signals. With the body in a calm state, the human antenna's bandwidth, or available frequency range, is increased. This is particularly important in the reception of higher frequencies. Clear, focused attention also allows the practitioner to use the body's antenna as a powerful transmitter. Perhaps this is why many of the world's oldest religions still use ritualistic postures during prayers. Quieting the brain and the body helps tune the antenna.

To this point we've discussed single antennas acting as transceivers. Another interesting dynamic emerges when multiple antennas are used together. Understanding this aspect will help illuminate the effect of groups of folks gathered together with one focus.

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