

The Biological Compass

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Author's note: Each patient education article in this column details research documented in *Somatovisceral Aspects of Chiropractic: An Evidence-Based Approach*, co-edited by Marion Todres-Masarsky, DC.

While most educational materials should focus on established findings, it does not hurt to occasionally engage the patient's imagination with a speculative article. Naturally, such an article should still be grounded in solid scientific evidence. Please feel free to use the following patient education article for your bulletin board, as a front-desk handout, or for tableside talks or lay lectures.

Recently, a New Zealand scientist trained homing pigeons to follow a magnetic field to a feeding platform.¹ Placing small magnets on the pigeons' beaks disrupted their ability to locate the magnetically tagged platform.

While evidence for the existence of a magnetic sense in migratory birds was published at least as early as the 1960s, these recent data isolate a particular part of the bird's body as the location of its biological compass. This helps to establish the nerve pathways serving this magnetic sense.

The biological compass may not be the exclusive property of migratory birds. In a British study, blindfolded students were driven a long distance from their campus.² Their ability to point in the direction of their campus after this long, meandering drive was impaired when magnets were placed at the back of their heads.

While we do not yet understand the nerve pathways that serve the human magnetic sense, it is interesting to note that other human senses can be disrupted by spinal misalignment or restriction (subluxation). Blurred vision, ringing in the ears, hearing loss and a distorted sense of balance have all been reported in some patients with spinal subluxation, especially in the neck and upper back.

In these cases, chiropractic adjustments have often been reported to be beneficial.³ As we come to understand more about the human magnetic sense, it will be interesting to see how it is affected by the spinal subluxation and the chiropractic adjustment.

References

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2. Baker RR. Goal orientation by blindfolded humans after long-distance displacement: possible involvement of a magnetic sense. *Science* 1980;210:555.
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