

Abstract Submitted
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How are static magnetic fields detected biologically? LEONARD FINEGOLD, Department of Physics, Drexel University — There is overwhelming evidence that life, from bacteria to birds to bats, detects magnetic fields, using the fields for orientation or navigation. Indeed there are recent reports (based on Google Earth imagery) that cattle and deer align themselves with the earth's magnetic field. [1]. The development of frog and insect eggs are changed by high magnetic fields, probably through known physical mechanisms. However, the mechanisms for eukaryotic navigation and alignment are not clear. Persuasive published models will be discussed. Evidence, that static magnetic fields might produce therapeutic effects, will be updated [2].

[1] S. Begall, *et al.*, *Proc Natl Acad Sci USA*, 105:13451 (2008).

[2] L. Finegold and B.L. Flamm, *BMJ*, 332:4 (2006).

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