

## The Definition of Magnetic Polarity as used in Human Physiology

A magnetometer is used to identify positive (+) and negative (-) magnetic poles. A magnetometer is a scientific instrument, which identifies magnetic polarity in terms of electromagnetic polarity, which is positive (+) and negative (-) rather than the geographic compass needle identification of north and south. When using a compass to identify magnetic poles, a north seeking compass needle identifies a negative magnetic field of a static field permanent magnet. The north-seeking needle of a compass is magnetic positive and therefore points to (seeks) the magnetic negative north pole of the earth and also the magnetic negative magnetic field of a static field permanent magnet. The south-seeking needle of a compass is magnetic negative and therefore points to (seeks) the magnetic positive south pole of the earth and also the positive magnetic field of a static field permanent magnet.

Static field permanent magnets can properly be characterized as DC magnets because they are magnetized by a direct electric circuit current in which the positive electric pole produces a positive magnetic field and the negative magnetic pole produces a negative magnetic field. Those magnetically charging magnets from a DC electric current understands this relationship. Robert O. Becker, M.D., prefers to use the term DC magnets as applied to static field permanent magnets.

In 1600, William Gilbet (De Magnete) was the first to point out that the navigator oriented himself with the compass needle pointing toward north, which he called north, when in fact the compass needle pointed north is a south magnetic field.

Several scientists throughout the years have identified this error in naming the magnetic poles. This error in identifying poles still persists as tradition.

The physicist, B. Belaney (New Encyclopedia Britannica 1986. Vol. VIII, pages 274-275) again identified this geographic error in identifying magnetic poles and termed it "semantic confusion". To avoid this semantic confusion, he recommended using the electrical polarity definition of positive (+) and negative (-) as applicable to magnetic poles in which a positive electric pole (=) is also a positive magnetic pole (-qM) and a negative electric pole (-) is also a negative magnetic pole (-qM). "M" stands for magnetism.

The body is an electromagnetic organism with a direct current (DC) central nervous system in which the brain with its neuronal bodies is a positive magnetic field and, also produces a positive electric field. The extensions from the neuronal bodies are a negative magnetic field and also produce a negative electric field. The human body does not have a storage battery from which electricity flows or an electric dynamo from which electricity flows. Rather, by a mechanism comparable to a magnita, the human body turns its magnetic fields into DC electric current. It is also true that each cell of the body has a positive and negative magnetic field in its DNA. Since the human body functions on a DC electromagnetic circuit, it is especially appropriate to use the positive (=) and negative (-) identification of magnetic polarity when relating magnetism to the human body. The human body does not have a north and south poled field, rather has positive and negative magnetic fields from which electricity is produced. A geographic definition of magnetic polarity is not applicable to human physiology whereas, an electromagnetic definition of magnetic polarity is essential. If and when the geographic definition of polarity is used, it still requires a translation into usable terminology for application to human physiology.

For the above reasons the definitions of positive (+) and negative (-) magnetic fields are used when applying magnetics to human physiology. The traditional compass needle oriented naming of magnetic poles is included in brackets as negative (south-seeking) and positive (north-seeking).

There is need to understand the navigational error in identifying the magnetic poles as well as the parallel identification in identifying DC electrical current poles and DC static field permanent

magnet poles made from the DC current. To those who have examined for and identified the distinctly opposite biological responses to opposite magnetic fields, the separate identification of the magnetic poles is an important must. To those not experienced in the knowledge of separate biological responses to opposite magnetic poles, the magnetic poles and the gauss levels needed for these responses is what is making biophysics become a predictable science parallel to the predictable industrial application of magnetics.