

## ABSTRACT

### Testing Effects on Red Blood Cells and the Bodies Circulatory System using Miracle Balance Relief Holographic Discs.

**Investigator:** HealthWalk Blood Specialist

**Test Subjects:** Testing is ongoing and has involved dozens of subjects from the start date of this study.

**Test Location:** Carlsbad, California **Date:** July 2007 and ongoing to date



**RICHARDSON MICROSCOPE** The Real-Time Microscope (RTM™), is a complete imaging system that provides revolutionary capabilities. The RTM shows, with precise clarity and contrast, the workings of living samples in real-time, in full color, in their normal condition, without fixation, staining or dehydration. Fresh samples can be put on the RTM and viewed at magnifications of 12-15,000 times, at resolutions at or below 185 nanometres and detection limits of better than 50 nanometres - within less than 15 seconds. Particle resolution below 200 nm and detection below 80 nm allow the observation of organelles and vesicles, which have never

before been seen moving inside cells.

The principle behind the RTM is inverted dark-field contrast in an ultra-stable, ultra-clean microscope system with full color imaging capability. The RTM system is an all-analog, all-optical set of techniques; it is not digitally enhanced microscopy.

The RTM Imaging System includes the microscope hardware, image management software and systems to store, analyze and edit images.

The RTM is a unique technology that challenges the traditional limitations of optical microscopy. It is a complete, ready-to-operate, live-cell imaging system, including microscope, monitor, video camera, video recorder, computer system and software.

**Claims:** Miracle Balance claims their holographic data disc use a thermoelectric effect in energizing acupuncture points on the body. This effect is claimed to be further enhanced by programming of longitudinal scalar waves, color, geometry and numbers in the Miracle Balance holograms. The changing program in the scalar imprinting is claimed to create different effects on the body. In the case of the Miracle Balance Relief disc the claim is that the energizing effect of the hologram increases circulation and provides a cooling effect on heated and inflamed areas which results in a decrease in pain.

**Purpose:** The purpose of the study was to examine the effectiveness of the Miracle Balance Relief Holographic Discs on the reaction of the red blood cells, and effect on circulation as it relates to pain issues. Increased circulation and zeta potential promotes healing by increasing the amount of vital oxygen and nutrients reaching the injured area.

**Test Type:** Single blind evaluation: Programs imprinted into holographic Relief discs applied to subjects was unknown to investigator at the time of testing. Test was conducted for evaluation purposes.

#### **Testing Protocol**

- A. First control was to prick finger and place live blood under Richardson Microscope for observation and record observations on a DVD.
- B. Next a Relief hologram from Miracle Balance was placed on the subject's right wrist on acupuncture point CV6.
- C. Follow-up within 5 minutes - prick finger and place live blood under Richardson Microscope for observation and record observations on a DVD.
- D. Live blood tests before and after were recorded on a DVD

## Summary

Comparison of before and after tests of the Relief Disc from Miracle Balance exhibited a marked decrease in blood flow viscosity, which is consistent with improved metabolic parameters normally seen in blood with the proper Zeta potential. The blood cells reflected increased separation, spin and vibration rate within 2 minutes of applying the Relief Holographic Disc.

## Conclusion

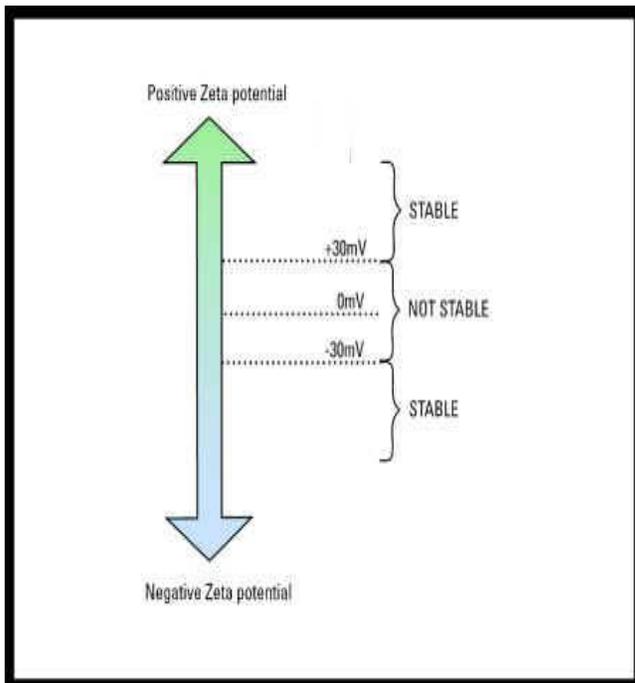
**Zeta Potential and the Ability of Blood To Carry Nutrients** Colloids are held in suspension via a very slight negative electrical charge on the surface of each particle. Like charges repel each other. This charge is called zeta potential. Blood is a colloidal solution, and all blood cells have a slight negative charge. Zeta potential is a measure of the electrical force that exists between atoms, molecules, particles, and cells in a fluid. Zeta potential's strength determines the amount of material (nutrients, wastes) that fluids such as your blood and lymph can carry. Increasing the electrical force in the solution allows the fluid to dissolve and hold more material. In this way, more nutrients can be carried throughout your body and accumulated deposits of waste can be removed.

When the zeta potential is too low, blood begins to coagulate. This is a condition known as intravascular coagulation (roping). Blood becomes a sludge that is increasingly difficult for the heart to pump, and decreasingly effective at performing the usual functions of blood. "Blood sludge" is widespread in the U.S. population (more than half the population will die from heart problems).

Intravascular coagulation is clearly visible in the blood vessels of a person's eye when viewed under relatively low level (60x) magnification.

Blood is in constant motion at constant temperature and the pH of blood is fixed at 7.35 to 7.4, but its concentration of electrolytes is not fixed, and the electrolytes directly affect the zeta potential.

## **Zeta Potential Defined**



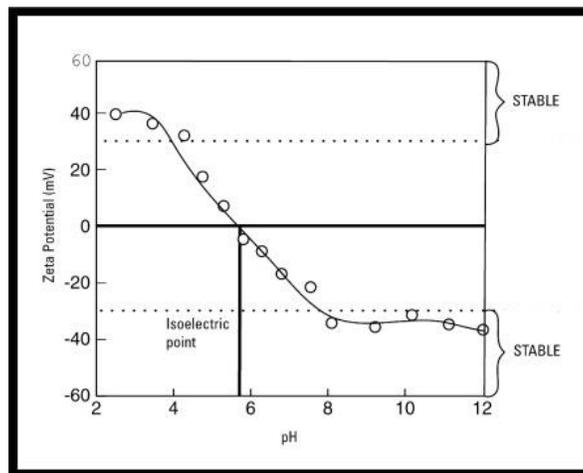
The zeta potential is the overall charge a particle acquires in a specific medium.

- The magnitude of the zeta potential gives an indication of the potential stability of the colloidal system
- If all the particles have a large negative or positive zeta potential they will repel each other and there is dispersion stability
- If the particles have low zeta potential values then there is no force to prevent the particles coming together and there is dispersion instability
- A dividing line between stable and unstable aqueous dispersions is generally taken at either +30 or -30mV
- Particles with zeta potentials more positive than +30mV are normally considered stable
- Particles with zeta potentials more negative than -30mV are normally considered stable

## The Influence of Zeta Potential

### Zeta Potential and pH

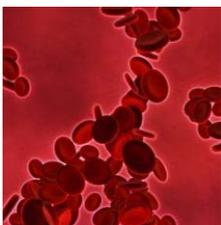
- The most important factor that affects zeta potential is pH
- A zeta potential value quoted without a definition of its environment (pH, ionic strength, concentration of any additives) is a meaningless number
- Imagine a particle in suspension with a negative zeta potential
- If more alkali is added to this suspension then the particles tend to acquire more negative charge
- If acid is added to this suspension then a point will be reached where the charge will be neutralized
- Further addition of acid will cause a build-up of positive charge
- In general, a zeta potential versus pH curve will be positive at low pH and lower or negative at high pH
- There may be a point where the curve passes through zero zeta potential
- This point is called the iso-electric point and is very important from a practical consideration
- It is normally the point where the colloidal system is least stable



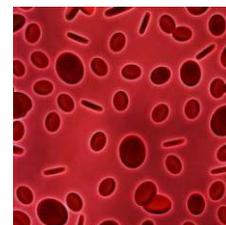
In the above example it can be seen that if the dispersion pH is below 4 or above 8 there is sufficient charge to confer stability. However if the pH of the system is between 4 and 8 the dispersion may be unstable. This is most likely to be the case at around pH 6 (the isoelectric point).

### Increasing your zeta potential accomplishes the following

- red blood cells are more effective
- heart is able to pump blood more easily
- blood and lymph are better able to carry nutrients
- body is better able to dissolve and remove toxic deposits
- healing is promoted by increasing the amount of vital oxygen and nutrients reaching the injured area



Example of blood cells with a positive charge



Example of blood cells with a negative Zeta potential