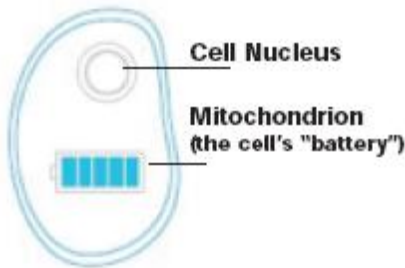
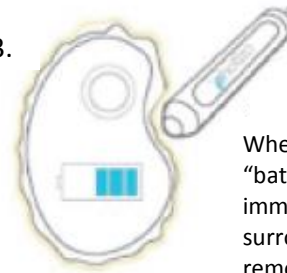


A step by step guide to how Photizo® works

1. A Normal Cell



3.



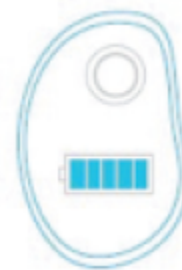
When Photizo is applied, the “battery” of the compromised cell immediately recharges. The surrounding inflammation is removed and adequate oxygen and nutrients are ensured

2. Inflammation



With injury age or disease a normal cell is compromised. When a cell is compromised, the “battery” of the cell is discharged, thus no energy is produced for normal function. A compromised cell also has insufficient amounts of nutrients and oxygen to sustain the cell, almost like a person being choked.

4.



Now the cell is functioning normally again. The “battery” is recharged, producing enough energy for normal functioning. The surrounding inflammation is removed, providing a healthy environment for the cell.

1. Photizo® stimulates the production of ATP in the mitochondria

ATP is the major carrier of energy in the cells and is made by the cell’s power unit, the mitochondria. Without ATP, all cellular functions cease and an increase in ATP allows the cells to accept nutrients faster and to dispose of waste products by increasing the energy levels in the cell. ATP provides the chemical energy that drives the chemical reactions of the cell. ATP production is enhanced by light therapy, as light of a coherent, optimal wavelength energises the cytochrome b structure, allowing it to donate electrons to the electron transport chain at a greater rate to increase ATP Production.

2. Photizo® reverses cell death process and ensures cell repair

Following injury, a cell quickly approaches a point of no return, after which cell death is a certainty. Photizo® light therapy, if administered immediately, can reverse most such cell death processes by increasing ATP production.

3. Cellular regeneration

Once a cell has died, the body needs to make new cells to replace the compromised or damaged cells. Light therapy prevents the overproduction of scar tissue and ensures quicker (up to 250X) cellular regeneration. This is of major importance for accident victims to regain full functionality. This accelerated “replacement” effect is seen in all cell types. Once cells have been boosted with light therapy they can resume their normal functioning and make new blood vessels, nerve tissue, bone cells, cartilage, etc. Light therapy does not cause cellular overgrowth or cancer – cells are merely recharged to resume their normal functioning.

4. Clearing of inflammation and increased lymphatic activity

Local inflammation, although necessary, chokes a cell. Photizo® lessens inflammation and ischemia, helping the cell to take up nutrients and oxygen from surrounding tissue and blood vessels. Light therapy relieves ischemia and stops cell “choking”. Oedema has two components ie. A liquid part, which can be evacuated by

the blood system and a proteinaceous component which is compromised of proteins which have to be evacuated by the lymphatic system. Research has shown that lymph vessel diameter and the flow of the lymphatic system can be doubled with the use of light therapy. The venous and arterial diameters can also be increased. This means that both components of oedema can be evacuated faster to reduce swelling.

5. Increased immune system activity

Near-infrared light has been shown to increase immune system functioning. The exact mechanism by which this occurs has not been established, but several studies have shown a systemic effect in subjects on whom light therapy was used. This means that local treatment of a wound with Photizo® has a general immune enhancing effect.

6. Photizo® Increases blood supply

Increases blood supply to areas by stimulating the formation of new capillaries and blood vessels to replace damaged ones. This speeds up the healing process by providing more oxygen and nutrients needed or healing to the damaged cells. It also accelerates waste and debris removal from the site of injury. Light therapy has a vasodilatory effect.

7. Systemic effect and reduced excitability of nervous tissue

Photizo® assists in reducing the excitability of nerve tissue, thereby relieving pain. There is also a sharp increase in endorphins and serotonin, providing a further systemic pain-relieving and calming effect. This is of importance in acute and chronic pain relief.

8. Photizo® regulates collagen production

Collagen is the most essential protein building block used to repair damaged tissues and to replace old tissues. By increasing and regulating collagen production less scar tissue is formed. Photizo® does not result in an overproduction of collagen – rather, it helps the cell produce optimal levels necessary for healing.