

Introducing a Patent-Pending Novel Formula to Optimize Stem Cell Circulation

StemFLO was designed essentially to do two things to promote optimal blood flow and circulation of stem cells in the body:

- 1 To reduce existing fibrin in the blood; and
- 2 To prevent the formation of fibrin.

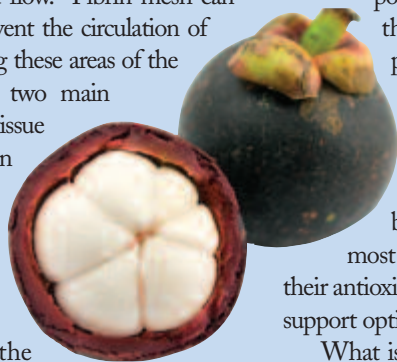
StemFLO™

by Christian Drapeau

Fibrin is a molecule normally produced in the blood as part of the coagulation process, to stop blood flow after an injury. During an injury, the damaged tissue activates a complex multi-step process leading to the formation of fibrin and then the cross-linking of fibrin strands to form the final blood clot.

But the formation of fibrin in itself is just one step in this complex multi-step process, and without the full activation of the coagulation cascade, the formation of fibrin does not lead to full blood clot. It simply leads to the presence of free-flowing fibrin mesh in the blood. This is what happens when there is oxidative stress in the blood. Free radicals in the blood lead to the formation of fibrin mesh whose size can at times impair optimal blood flow. Fibrin mesh can reduce blood flow through capillaries and prevent the circulation of stem cells in certain areas of the body, depriving these areas of the natural process of renewal. Therefore, the two main strategies to support stem cell delivery to every tissue of the body are to eliminate the presence of fibrin mesh and to prevent its formation when it is not needed to repair an injury. To do so, we have created StemFLO, a blend of fibrinolytic enzymes (fibrinolytic: that cuts fibrin) and powerful antioxidants.

Because many products exist on the marketplace designed to increase the fibrinolytic activity of the blood and to provide strong antioxidant properties, our mission with StemFLO was to search for the best quality available, and that's what we did. Most antioxidants are tested using a laboratory procedure that measures antioxidant capacity in a test tube, not in a living cell. These tests provide interesting information, but the results do not say anything about the effect of a specific antioxidant in the body, where it matters. So we used a novel assay called CAPE (Cell-based Antioxidant Protection in erythrocytes), and equipped with this assay during nearly three years we searched for the most effective ingredients available.

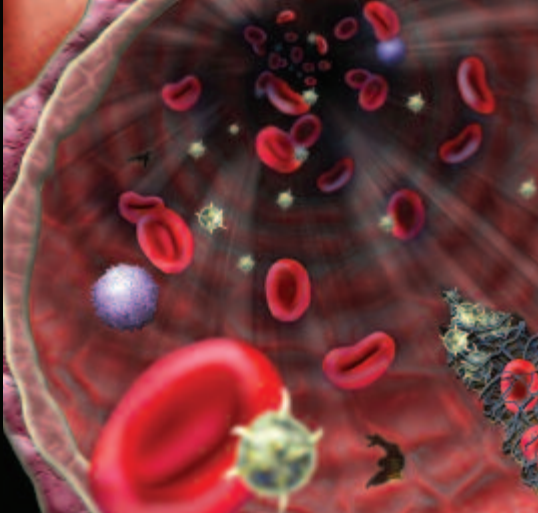


Mangosteen

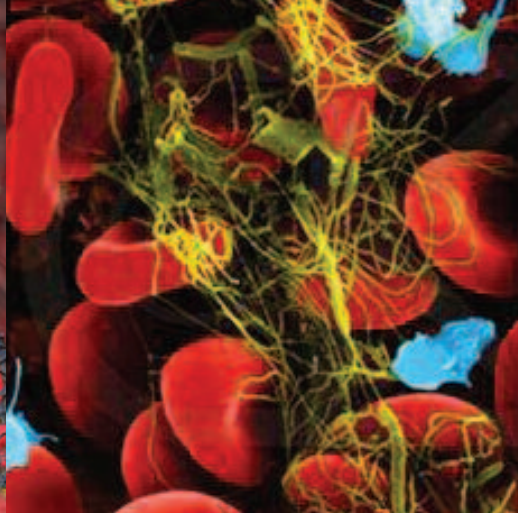
We discovered a unique location in Southeast Asia and developed a relationship with a farm that produces the top quality mangosteen crop, the only organically certified mangosteen available. When tested against some of the most popular sources of mangosteen on the marketplace, our source tested up to twenty times more potent. Likewise, we tested several sources of cat's claw, one of the most powerful antioxidant herbs available, and found the one with the most potent antioxidant and immune-supporting properties. Finally, working in collaboration with scientists in the field of berries and polyphenols, we developed a berry extract that provides one of the highest concentrations of polyphenols so far tested. And we completed this formula with curcumin and rehmannia, two botanical ingredients that are not yet generally known by most people, but that are very well known in herbal sciences for their antioxidant properties and their ability to help purify the blood and support optimal blood circulation.

What is novel in the StemFLO formula is the blend of powerful antioxidant and fibrinolytic properties, aiming at supporting optimal blood flow in the capillaries to optimize stem cell delivery to every tissue of the body. The novelty of this approach is such that a patent has been filed on StemFLO, concentrating on the physiological effect of blending together strong antioxidant and fibrinolytic botanical ingredients.

Now, this is all good theory, but how can we determine whether StemFLO effectively improves blood circulation in the body? There are many tests to measure blood circulation, but only one that can effectively measure circulation in the capillaries, the smallest blood vessels where stem cell migration takes place.



Coagulation Process



Fibrin Mesh in Blood

“When a tissue or blood vessel is damaged, the coagulation process leads to the formation of fibrin mesh at the site of the injury. The fibrin mesh captures red and white blood cells, forming a plug that stops the blood loss from the blood vessel.”

“With excessive oxidative stress in the blood, fibrin mesh can develop in the bloodstream, without injury, and impair optimal blood flow.”

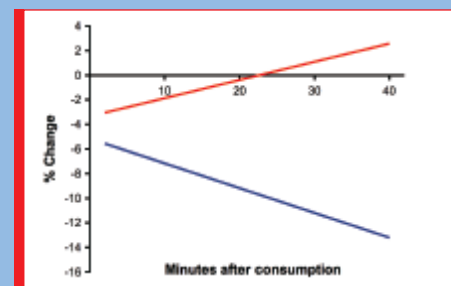
One of the blood’s main roles is to carry oxygen to every part of the body. The network of capillaries is so extensive that most tissue cells lay within 3-4 cells from a capillary. When there is optimal blood circulation, the delivery of oxygen is plenty and oxygen diffuses through the tissue. It is possible to monitor this phenomenon by measuring the amount of oxygen released through the skin by the capillaries located in the superficial layers of the skin. However, when oxygen delivery is impaired by reduced blood flow through the capillaries, the level of trans-cutaneous oxygen can fall significantly. Therefore, we measured the amount of oxygen released through the skin before and after consumption of StemFLO

When an individual lies down and rests, the lack of movement slowly reduces the amount of blood flowing through the skin, and there is a normal reduction in trans-cutaneous oxygen (as the blue line shows in the graph). When StemFLO is given to individuals, within twenty minutes there is a reversal of that phenomenon, indicating an improved blood circulation through capillaries. By digesting fibrin in the blood and preventing fibrin formation, StemFLO promotes optimal capillary circulation throughout the body.

So what is the best way of taking StemFLO? It is important not to take StemFLO at mealtime. When StemFLO is taken with a meal, the enzymes would be somewhat consumed during the process of digestion. It is also important to take StemFLO along with StemEnhance®, so that the stem cells released from the bone marrow can best take advantage of the improved capillary circulation throughout the body. If a person wants to take additional StemFLO to further improve blood circulation, it is probably better to take it more often during the day than to take more capsules at once.



Blood coagulation can be triggered by irregularities in the cardiovascular system (intrinsic system; top left) or by actual injuries to tissues (extrinsic system; top right). Both systems lead to the activation of a series of compounds whose common end point is the transformation of prothrombin into thrombin, and then the transformation by thrombin of fibrinogen into fibrin mesh. During the normal coagulation process, the formation of thrombin also triggers the cross-linking of fibrin to complete the formation of the blood clot. When fibrinogen is transformed into fibrin mesh by the action of free radicals, this isolated process does not lead to full blood clot but simply to soluble fibrin mesh floating in the circulation.



Measuring the level of oxygen that permeates through the skin is an accurate way of estimating capillary blood flow. Upon lying down, it is normal to see the level of trans-cutaneous oxygen decrease (blue line). In this situation, any change in capillary flow can be detected as an increase in trans-cutaneous oxygen release. Within minutes after consumption of StemFlo, capillary flow is significantly improved (red line). Lines represent the average of three tests in one individual.