**DISCOVERY HEALTH CHANNEL** host Laurent Bannock, D.Sc., has just completed a multi-patient study at the Santa Fe Center for Nutritional Medicine in Santa Fe, New Mexico, to examine the ability of Neprinol, a systemic enzyme formula, to help the body maintain healthy fibrin activity and inflammation levels. Healthy Living obtained extremely detailed clinical reports from Dr. Bannock that provide evidence of Neprinol's ability to help aging patients maintain healthy fibrin and inflammation processes in the body. This is critical since fibrosis, which is the excess sclerotic production of fibrin, causes high inflammation, a significant cause of premature aging and a clear-cut dangerous health signal. His study results, thus far, deal particularly with patients who complained primarily of osteoarthritis symptoms, which we now know to be an inflammatory condition, as well as the even more inflammatory rheumatoid arthritis and health challenges involving cholesterol and insulin response.

Neprinol combines key enzymes and synergists, such as nattokinase, serrapeptase, papain, bromelain, rutin and lipase (with coenzyme Q_{10}).

**ENZYME DEFICIENCY PERVASIVE**

When it comes to fighting premature aging, many people are watching their diet, exercising, reducing exposure to pollution, taking vitamins, expanding their spiritual life, and even practicing meditation and relaxation techniques, praying or maintaining a strong religious affiliation.

But if they have not begun a supplement program with systemic oral enzymes, they're just not doing enough, say health experts like Bannock.

Today, we have grounds for assuming that there are thousands of catalytic processes taking place between tissues and fluids in living plants and animals. These processes can occur only as a result of enzymatic reactions, he adds.

European health experts call enzymes the "fountain of youth" because life cannot occur without them. But only recently has the medical scientific community begun to truly realize the importance of supplementing daily with systemic oral enzymes.*

Unfortunately, the body's enzyme activity declines markedly as we age; yet, we need optimal enzyme activity throughout our lives. Ancient men and women received enzymes from their diet via vegetables, fruits and other raw foods, nature's richest sources of enzymes.

Unfortunately, however, even moderate temperatures at which most foods are cooked destroy enzymes. Although enzymes are found most active in raw or lightly cooked foods, most people won't eat raw foods, especially meat, which provides several important enzymes.

What's more, the majority of food people consume today is both processed and cooked at extremely high temperatures, reducing dietary enzyme levels even more.

* Systemic oral enzymes should not be confused with digestive enzymes. Systemic oral enzymes are resorbed via the digestive tract into the bloodstream where they act systemically.
For these reasons, people receive very few enzymes from their diets, and, in effect, are suffering from some of the most common health problems such as circulatory disorders, cancer, arthritis and kidney disease. Other medical experts point out that young people have much more enzyme activity than older people whose ability to manufacture enzymes diminishes with age.

The aging body’s diminished enzyme activity is part of the reason that people age prematurely. Bannock’s work and many other studies that have been covered extensively in medical journals support the use of systemic oral enzymes as a healthy approach to keeping the heart, joints, brain and other organs functioning healthfully for as long as possible.

**DARK SIDE of TISSUE REPAIR**

When scientists examine the most deadly, disabling maladies to which people succumb as they age—including heart disease, stroke, cancer, diabetes, kidney disorders and arthritis—similar underlying causes can be found: All of these conditions are characterized by insidious sclerosis and fibrosis that is caused by the over-secretion of growth factors.

Sclerosis is defined as a hardening of a bodily tissue or part (such as the coronary arteries, i.e., arteriosclerosis) or an increase of connective tissue or the like at the expense of more active tissue.

Meanwhile, fibrosis is very similar to sclerosis, involving development of excess fibrous tissue in an organ (such as kidney fibrosis). Fibrosis can be detected in a number of ways.

These conditions are often marked by high inflammation. Health experts have different ways of measuring the progression of these unfavorable bodily processes. For example, Dr. Bannock used **digital video blood microscopy** (see pictures in following pages). Digital microscopy shows doctors whether blood has excess fibrin and is clumping or fatty. Such sluggish blood almost always goes with rheumatoid and osteoarthritis, as well as other negative health conditions. Dr. Bannock used **C-reactive protein** (CRP) measurements to determine bodily inflammation levels of the patients in his clinical study. High or high-normal CRP levels are often an indication of unhealthy fibrin activity, causing the blood to clump, increasing risk of heart attacks and strokes. The test is still relatively new but widely accepted in the medical community. You might have to ask your own doctor for this test. But in any event, doctors clearly associate high CRP with increased risk for heart disease. Another test used in the study was measuring **erythrocyte sedimentation rate** (ESR). According to an online medical information site, a blood sample is taken and put in a tube with some chemicals to stop the blood from clotting. The tube is left to stand upright. The red blood cells (erythrocytes) gradually fall to the bottom of the tube as a sediment. The clear liquid plasma is left at the top. The ESR measures the rate at which the red blood cells separate from the plasma and fall to the bottom of a test tube. The rate is measured in millimeters per hour (mm/hr). If certain proteins cover red cells, these will stick to each other and cause the red cells to fall more quickly. So, a high ESR indicates that you have some inflammation, somewhere in the body.

Have you ever seen fibrosis? You might not think so. But leathering, wrinkling and elastosis (loss of skin elasticity) are all outer signs of fibrosis. Yet, what most people don’t realize is that what is happening on the outside of the body is happening on the inside, too—to their arteries, kidneys, lungs and other tissues and organs.

Both sclerosis and fibrosis proceed with almost uncanny determination by the time a person reaches 40 and eventually affect virtually every tissue and organ in the body.

There is, however, an answer. According to Arthur Andrew Medical, the manufacturer of the Neprinol formula used by Dr. Bannock’s patients, the formula uses individually enterically coated enzymes to increase pH range and resistance to stomach acid. Neprinol contains the purest form of serrapeptase, nattokinase and CoQ10 available. In helping the body to maintain normal fibrin production, fibrinolytic enzymes, such as nattokinase and serrapeptase, appear to lower C-reactive protein levels, the inflammation marker linked to heart attacks and a marker for overall health.

Unlike taking daily aspirin, which is an over-the-counter drug, Neprinol is a nutritional supplement that helps the body to maintain already healthy fibrin expression and inflammation levels, and Neprinol does not generate gastrointestinal distress, and does not put stress on the liver.

In experimental studies, nattokinase has been shown to remove arterial blockages by helping the body to maintain natural fibrinolytic processes. These few studies certainly bear relevance, as they contain explicit medical images showing dissolution, and many more studies should be done in
clinical settings. However, nattokinase is not approved as a drug in the United States and would require extensive study for anybody to make claims that it compares to a drug. Nattokinase is unique and interesting in that it is natural (derived from the fermented Japanese food natto). It is not a drug but it does have interesting properties. The combination of serrapeptase and nattokinase, together with papain and bromelain, offers a complete fibrinolytic compliment of enzymes.

**CASE STUDIES**

The following case studies were taken from a larger six-month independent clinical study on Neprinol that was carried out by Dr. Bannock. Besides running a thriving nutritional medicine and clinical practice, Dr. Bannock is also professor of applied clinical nutrition for the International Institute for Clinical Nutrition. He is the author of several academic and professional reference books including *Applied Clinical Nutrition* (IICN Press, 2002), *Clinical Human Nutrition* (IICN Press, 2001) and *The Nutritional Medicine Desk Reference* (due for release this year). Dr. Bannock has used both CRP measurements, digital video blood microscopy and other standard lab tests, as well as patients’ subjective assessments, to demonstrate the benefits of Neprinol. These are important for anyone interested in staying youthful.

**Neprinol Case Study #1**

Study Subject: 45-year-old male construction worker, recently diagnosed with osteoarthritis.

**Initial Visit**

- **Subjective:** Chronic pain and inflammation of the wrist and elbow joints (both arms). Uses over-the-counter ibuprofen for relief, regularly.
- **Objective:** Lab tests showed very high C-reactive protein, high ESR, high platelets and high globulin values. Digital video blood microscopy showed significant protein polymerization (oxidative stress that causes high ESR levels), raised platelets, raised poikilocytes (variably shaped cells, which are seen in iron deficiency anemia), raised fibrin and raised white blood cells (WBCs, an indication of an unhealthy immune system).
- **Treatment:** Three Neprinol capsules, twice a day, between meals. Advised to discontinue ibuprofen usage. No other medications or supplements were recommended (for the purposes of the study).

**Two Month Follow-Up Visit**

- **Subjective:** Still had some pain and inflammation of wrists and elbows, but reports symptoms to be markedly improved.
- **Objective:** Lab tests showed slightly raised C-reactive protein, high ESR, normal platelets, slightly raised globulin values. Digital video blood microscopy showed moderate protein polymerization (oxidative stress), slightly raised platelets, slightly raised poikilocytes, normal fibrin and slightly raised WBCs.
- **Treatment:** Three Neprinol capsules, twice a day, between meals. Has discontinued ibuprofen usage.

**Four Month Follow-Up Visit**

- **Subjective:** Completely pain and inflammation free. No longer uses ibuprofen at all!
- **Objective:** Lab tests showed normal C-reactive protein, slightly high ESR, normal platelets and normal globulin values. Digital video blood microscopy showed slight protein polymerization (oxidative stress), normal platelets, very few poikilocytes, no fibrin and normal white blood cells.
- **Treatment:** Two Neprinol capsules twice daily, between meals.

**Lab Test Values (Blood) for Neprinol Case Study #1**

<table>
<thead>
<tr>
<th>Lab Test</th>
<th>Initial Visit</th>
<th>2 Month Visit</th>
<th>4 Month Visit</th>
<th>6 Month Visit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>C-reactive protein</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low= &lt; 1.0</td>
<td>13.7 mg/L</td>
<td>11.4 mg/L</td>
<td>7.1 mg/L</td>
<td>2.8 mg/L</td>
</tr>
<tr>
<td>Average= 1.0-3.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High= 3.1-10.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Persistent Inflammation= &gt; 10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESR</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normal Values for Males: 0-15 mm/hour</td>
<td>17.3 mm/hour</td>
<td>16.7 mm/hour</td>
<td>15.2 mm/hour</td>
<td>9.4 mm/hour</td>
</tr>
<tr>
<td>Platelets</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normal Values: 155-385 x 10^11/mm^3</td>
<td>397 x 10^11/mm^3</td>
<td>353 x 10^11/mm^3</td>
<td>316 x 10^11/mm^3</td>
<td>317 x 10^11/mm^3</td>
</tr>
<tr>
<td>Globulin</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normal Values: 2.0-3.9 g/dl</td>
<td>4.2 g/dl</td>
<td>3.94 g/dl</td>
<td>3.16 g/dl</td>
<td>2.77 g/dl</td>
</tr>
</tbody>
</table>
Understanding Live Blood Video Microscopy

Video microscopy of live and dried layered blood analysis is a unique technique used to formulate an appropriate course of natural health-building and lifestyle principles to optimize health, prevent disease, and to monitor individual effectiveness, according to Dr. Bannock. This technique uses live, not preserved, blood, with higher magnification.

The live blood images below and throughout the rest of this report reflect several types of live blood video microscopy.

The first three images in each four-image set utilize phase contrast and dark field microscopy. In these, the clinician searches for fibrin spiculae, which should not appear in live blood at all. “It indicates that the balance between hemostasis and fibrinolysis is too much in favor of clotting,” says Dr. Bannock. Additionally, cholesterol and mycoplasma organisms can also be viewed in the blood.

The last image in each four-image set is Dried Layered Blood Analysis to examine the coagulation cascade. This application of viewing dried suspended blood samples offers the qualified analyst and client valuable clues to potential degenerative patterns. “Through the oxidation of the blood cells, and toxins present in the blood, we are able to see characteristic patterning of an alternative pathway other than the extrinsic or intrinsic pathways. This allows us to identify what parts of the body are holding toxins and therefore functional capacity may be impaired,” says Dr. Bannock.

Digital Video Blood Microscopy Micrographs for Neprinol Case Study #1

Initial Visit
Significant protein polymerization, raised platelets, raised poikilocytes, raised fibrin and raised WBCs.

2 Month Follow-Up Visit
Moderate protein polymerization, slightly raised platelets, slightly raised poikilocytes, normal fibrin and slightly raised WBCs.

4 Month Follow-Up Visit
Slight protein polymerization, normal platelets, very few poikilocytes, no fibrin and normal WBCs.

6 Month Follow-Up Visit
Normal!

Six Month Follow-Up Visit

Subjective: Still completely pain and inflammation free.

Objective: Lab tests are normal. Digital video blood microscopy is normal.

Treatment: One Neprinol capsule twice daily, between meals.

Neprinol Case Study #2

Study Subject: 67-year-old female retired administrator, diagnosed with rheumatoid arthritis five years ago.

Initial Visit
Subjective: Pain, inflammation and discomfort, and partial loss of all joint functions. Has been using NSAIDs (nonsteroidal anti-inflammatory drugs, such as aspirin or ibuprofen) since diagnosis five years ago. The NSAIDs only provide partial relief of symptoms. Has also been taking fish oils and glucosamine supplements for one year with some benefit to all symptoms.

Objective: Lab tests showed high uric acid, high ESR, raised C-reactive protein and low albumin values. Digital video blood microscopy showed significant protein polymerization and fibrin.

Treatment: Five Neprinol capsules, three times daily, between meals. The subject continued existing meds and supplements.

Two Month Follow-Up Visit
Subjective: Notices a difference by slight improvement in joint function and greater relief.

Objective: Lab tests showed slightly improved ESR values, normal C-reactive protein, similar uric acid values and slightly improved (but still low) albumin values. Digital video blood microscopy showed a reduction in protein polymerization and a significant drop in fibrin.

Treatment: Five Neprinol capsules, three times daily, between meals. The subject continued existing meds and supplements.

Four Month Follow-Up Visit
Subjective: Reports significant improvements in joint function and significant relief. Wants to try and come off NSAIDs.

Objective: Lab tests showed nearly normal ESR values, slightly high uric acid values, normal
C-reactive protein and normal albumin values. Digital video blood microscopy showed slight protein polymerization and virtually no fibrin.

**Treatment:** Five Neprinol capsules, three times daily, between meals. The subject continued supplements and is starting to reduce NSAIDs.

### Six Month Follow-Up Visit

**Subjective:** Continues to notice improvements in joint function and relief of pain and inflammation. Has been off NSAIDs for one month. Reports that quality of life has significantly improved!

**Objective:** Lab tests showed that uric acid values are slightly high, with normal ESR, C-reactive protein and albumin values. Digital video blood microscopy is nearly normal with very slight polymerization.

**Treatment:** Five Neprinol capsules, three times daily, between meals. The subject continued supplements, and has discontinued NSAIDs.

### Neprinol Case Study #3

**Study Subject:** 44-year-old male company executive, just diagnosed with hyperlipidemia (high cholesterol). Does not want to take cholesterol-lowering drugs. No supplements are currently being taken.

**Initial Visit**

**Subjective:** No perceived symptoms.

**Objective:** Lab tests showed high triglycerides, high cholesterol, high low-density lipoproteins (LDLs, the bad cholesterol) and low high-density lipoproteins (HDLs, the good cholesterol). Digital video blood microscopy showed raised triglyceride crystals, raised poikilocytes, raised bicarbonate buffers and significant protein polymerization.

**Treatment:** Three Neprinol capsules, twice daily, between meals.

**Two Month Follow-Up Visit**

**Subjective:** No perceived symptoms, but reports that he has more energy and has lost some weight (four pounds).

**Objective:** Lab tests showed slightly improved triglycerides, cholesterol, LDLs and HDLs, but all remain out of healthy range. Digital video blood microscopy showed a reduction in triglyceride crystals, no bicarbonate buffers (normal), slight polymerization and slight poikilocytes.

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### Lab Test Values (Blood) for Neprinol Case Study #2

<table>
<thead>
<tr>
<th>Lab Test</th>
<th>Initial Visit</th>
<th>2 Month Visit</th>
<th>4 Month Visit</th>
<th>6 Month Visit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uric acid</td>
<td>8.4 mg/dl</td>
<td>8.1 mg/dl</td>
<td>7.9 mg/dl</td>
<td>8.0 mg/dl</td>
</tr>
<tr>
<td>C-reactive protein</td>
<td>6.4 mg/L</td>
<td>3.0 mg/L</td>
<td>2.7 mg/L</td>
<td>2.7 mg/L</td>
</tr>
<tr>
<td>Low= &lt; 1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average= 1.0-3.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High= 3.1-10.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Persistent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inflammation= &gt; 10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESR</td>
<td>22.7 mm/hour</td>
<td>21.8 mm/hour</td>
<td>17.5 mm/hour</td>
<td>12.4 mm/hour</td>
</tr>
<tr>
<td>Normal Values</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>for Females:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-20 mm/hour</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Albumin</td>
<td>2.6 g/dl</td>
<td>2.9 g/dl</td>
<td>3.6 g/dl</td>
<td>4.0 g/dl</td>
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<tr>
<td>Normal Values:</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>3.5-5.5 g/dl</td>
<td></td>
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</tr>
</tbody>
</table>

### Digital Video Blood Microscopy Micrographs for Neprinol Case Study #2

- **Initial Visit**
  - Significant protein (oxidative stress) polymerization and fibrin.

- **2 Month Follow-Up Visit**
  - Reduction in protein polymerization and a significant drop in fibrin.

- **4 Month Follow-Up Visit**
  - Slight protein polymerization and virtually no fibrin.

- **6 Month Follow-Up Visit**
  - Nearly normal with very slight polymerization.
Treatment:
Three Neprinol capsules, twice daily, between meals.

Four Month Follow-Up Visit
Subjective: No perceived symptoms. Continues to feel more energy and continues to lose weight (eight pounds).
Objective: Lab values for triglycerides, cholesterol, LDLs and HDLs continue to improve, but remain slightly out of healthy range. Digital video blood microscopy showed some poikilocytes, otherwise all normal.
Treatment: Three Neprinol capsules, twice daily, between meals.

6 Month Follow-Up Visit
Subjective: No perceived symptoms. Has maintained weight loss and good energy levels.
Objective: Lab tests were all within range. Digital video blood microscopy was normal.
Treatment: Two Neprinol capsules, twice daily, between meals.

Neprinol Case Study #4
Study Subject: 26-year-old female graduate student, recently diagnosed with hyperinsulinemia (elevated blood insulin, indicating resistance to insulin uptake by bodily organs). Subject is also overweight and complains of chronic fatigue. Patient has been following an appropriate diet and has been engaged in regular exercise for the past six months but is frustrated with lack of results.

Initial Visit
Subjective: Perceived blood sugar problems, chronic fatigue, overweight, sleep problems (staying asleep and also always falling asleep during the day), chronically depressed.
Objective: Lab tests showed low blood glucose, high triglycerides, high cholesterol, low HDL, low serum phosphorous levels. Digital video blood microscopy showed slightly raised poikilocytes and some protein polymerization (oxidative stress).
Treatment: Three Neprinol capsules, four times daily, between meals.

The End of Heart Disease and Arthritis continued

Treatment: Three Neprinol capsules, twice daily, between meals.

Lab Test Values (Blood) for Neprinol Case Study #3

<table>
<thead>
<tr>
<th>Lab Test</th>
<th>Initial Visit</th>
<th>2 Month Visit</th>
<th>4 Month Visit</th>
<th>6 Month Visit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triglycerides</td>
<td>245 mg/dl</td>
<td>211 mg/dl</td>
<td>176 mg/dl</td>
<td>121 mg/dl</td>
</tr>
<tr>
<td>Normal Values:</td>
<td>30-150 mg/dl</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cholesterol</td>
<td>312 mg/dl</td>
<td>288 mg/dl</td>
<td>233 mg/dl</td>
<td>181 mg/dl</td>
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<tr>
<td>Normal Values:</td>
<td>130-200 mg/dl</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LDL Cholesterol</td>
<td>154 mg/dl</td>
<td>149 mg/dl</td>
<td>138 mg/dl</td>
<td>111 mg/dl</td>
</tr>
<tr>
<td>Normal Values:</td>
<td>60-30 mg/dl (calc)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDL Cholesterol</td>
<td>28 mg/dl</td>
<td>33 mg/dl</td>
<td>39 mg/dl</td>
<td>53 mg/dl</td>
</tr>
<tr>
<td>Normal Values:</td>
<td>40-90 mg/dl</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Digital Video Blood Microscopy Micrographs for Neprinol Case Study #3

Initial Visit
Raised triglyceride crystals, raised poikilocytes, raised bicarbonate buffers and significant protein polymerization.

2 Month Follow-Up Visit
Reduction in triglyceride crystals, no bicarbonate buffers (normal), slight polymerization and slight poikilocytes.

4 Month Follow-Up Visit
Some poikilocytes, otherwise all normal.

6 Month Follow-Up Visit
Normal!
Two Month Follow-Up Visit

**Subjective:** Significant improvement in perceived blood sugar levels, less fatigue, no significant weight loss, improved sleep and not falling asleep during the day as often. Not depressed all the time.

**Objective:** Lab tests showed slightly high blood glucose, slightly high triglycerides, slightly high cholesterol, slightly low HDL and normal serum phosphorous levels. Digital video blood microscopy showed some protein polymerization.

**Treatment:** Three Neprinol capsules, four times daily, between meals.

Four Month Follow-Up Visit

**Subjective:** No perceived blood sugar problems, almost normal energy levels, lost eight pounds in body fat, almost normal sleep patterns and rarely falls asleep during the day. Feels more confident!

**Objective:** Lab values normal! Digital video blood microscopy was normal.

**Treatment:** Three Neprinol capsules, four times daily, between meals.

Six Month Follow-Up Visit

**Subjective:** Continues to have no perceived blood sugar problems, mostly normal energy levels, sleeps well, cannot remember when last fell asleep during the day, has lost a further 12 pounds of body fat and is no longer overweight. Very happy and feels she has a renewed chance in life!

**Objective:** Lab tests were all still within range. Digital video blood microscopy was normal.

**Treatment:** Two Neprinol capsules, twice daily, between meals.

**SUMMARY**

These limited studies correspond with many other studies from European and American doctors that show systemic enzymes do in fact help the body to maintain already healthy inflammation and fibrin levels and expression. In future articles, we hope to provide additional results from Dr. Bannock’s clinical study as well as interview him.

**NEPRINOL PRESCRIPTION**

Clearly, we can now do something about one of the major causes of premature aging.

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### Lab Test Values (Blood) for Neprinol Case Study #4

<table>
<thead>
<tr>
<th>Lab Test</th>
<th>Initial Visit</th>
<th>2 Month Visit</th>
<th>4 Month Visit</th>
<th>6 Month Visit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triglycerides</td>
<td>177 mg/dl</td>
<td>157 mg/dl</td>
<td>144 mg/dl</td>
<td>125 mg/dl</td>
</tr>
<tr>
<td>Normal Values:</td>
<td>30-150 mg/dl</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Cholesterol</td>
<td>232 mg/dl</td>
<td>206 mg/dl</td>
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<td>Normal Values:</td>
<td>130-200 mg/dl</td>
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<td></td>
</tr>
<tr>
<td>HDL Cholesterol</td>
<td>31 mg/dl</td>
<td>39 mg/dl</td>
<td>44 mg/dl</td>
<td>61 mg/dl</td>
</tr>
<tr>
<td>Normal Values:</td>
<td>40-90 mg/dl</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Blood Glucose</td>
<td>61 mg/dl</td>
<td>65 mg/dl</td>
<td>71 mg/dl</td>
<td>73 mg/dl</td>
</tr>
<tr>
<td>Normal Values:</td>
<td>65-115 mg/dl</td>
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<tr>
<td>Phosphorous</td>
<td>2.4 mg/dl</td>
<td>2.8 mg/dl</td>
<td>3.0 mg/dl</td>
<td>2.9 mg/dl</td>
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<tr>
<td>Normal Values:</td>
<td>2.5-4.5 mg/dl</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

---

### Digital Video Blood Microscopy Micrographs for Neprinol Case Study #4

**Initial Visit**

Slightly raised poikilocytes and some protein polymerization (oxidative stress).

**2 Month Follow-Up Visit**

Some protein polymerization.

**4 Month Follow-Up Visit**

Normal!

**6 Month Follow-Up Visit**

Normal!
A Closer Look at Neprinol's Ingredients

Serrapeptase: The Silkworm Enzyme

The silkworm (Bombyx mori) is living proof of the old cliché that great things come from the humblest of creatures. It has been renowned since ancient times for its production of the fabric that bears its name, which comes from the cocoon it spins.

But the silkworm’s importance stretches beyond fashion; its intestine and saliva are the source of an enzyme called serrapeptase (SER) that has been documented throughout Europe and Japan to alleviate conditions ranging from cardiovascular disease and arthritis to respiratory diseases and joint inflammation.

Serrapeptase, technically called serratiopeptidase, is responsible for helping the silkworms break out of their cocoons by digesting the fibers. This same agent is used nonliving tissue, such as blood clots, cysts, and arterial plaque and inflammation. Serrapeptase is thought to work in three ways:

1) to reduce inflammation by thinning the fluids formed from injury, and help drain the fluid;
2) to alleviate pain by inhibiting the release of pain-inducing amines;
3) to possibly enhance cardiovascular health by breaking down the protein by-products of blood coagulation called fibrin, which is an essential portion of blood clots. Serrapeptase may also dissolve athero-sclerotic plaques without causing any harm to the inside of the arteries.

Serrapeptase has been widely distributed for the past 25 years in Europe and Asia under the names Danzen™, Anti-flazym™ and Serrzyme™. It hit American shores in 1997. A search on the venerable medical research website, Pubmed.org, reveals about 40 studies on SER. Here are a few examples of the research that can be found. The February 1989 issue of the Singapore Medical Journal cited its use against breast enlargement, where it went under the name Danzen™. After the three days, SER was noted to be superior to the placebo: 85.7% of the patients receiving SER had “moderate to marked” improvement, compared to the 60% for the placebo takers.

A more recent study, published by Respiratory just last summer, measured the effectiveness of SER in patients with chronic airway disease, which symptoms include excessive mucus production. After four weeks of treatment, the 15-patient group assigned to take 30 mg of SER experienced a marked improvement over their counterparts that were not treated.

Serrapeptase’s versatile use for a variety of conditions has been noticed by major newspapers. The British newspaper Daily Mail reported in November 12, 2002 how Stephen Kershaw, an athlete who was taking oral steroids for his asthma, switched to serrapeptase under the direction of Dr. Kamal Anand. After a week on the “silkworm enzyme,” Stephen’s condition had improved enough for him to put off going back on steroids. Dr. Anand believes that the enzyme’s propensity for eating dead tissue did the trick.

The November 5, 2002 issue of Daily Express recounts a story that could not be any less similar: 32-year-old Lea Verity was suffering from a childhood accident that left her jaw muscles inflamed around the joint, leaving her unable to enjoy eating or smiling without pain. “After just a few days I started to notice an improvement,” she told the British daily. “The feeling in my face seemed to be coming back and the pain wasn’t as bad. After two weeks, I stopped taking ibuprofen. I couldn’t believe it— I was pain-free, the stiffness in my jaw had gone and all the feeling in my face had returned. [Serrapeptase] achieved more in weeks than 32 years of orthodontic treatment.”