CHRONIC FATIGUE SYNDROME and ADENOSINE MONOPHOSPHATE

Legere Pharmaceuticals
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What is Chronic Fatigue Syndrome (CFS)?

• Do you often feel tired or lethargic in the early afternoon? Or perhaps at the end of the day, you collapse into an armchair completely exhausted and unable to move? Why do other people seem to have so much more energy than you, even after an extremely busy day? You may be suffering from fatigue. Fatigue can be a symptom of just about any illness, vitamin deficiency, too much stress, too little sleep, poor diet and more. It is the most common symptom reported to doctors by patients. When fatigue makes it hard for you to function, lasts for more than 6 months, isn't relieved by rest and gets worse after even mild physical or mental exertion, it is called Chronic Fatigue Syndrome (“CFS”).

• People with CFS often function at a substantially lower level of activity than they were capable of before they became ill. This is because CFS symptoms affect several body systems and may include weakness, muscle pain, impaired memory and/or mental concentration, and insomnia, all of which can result in reduced participation in daily activities.
• It is estimated that there are one million Americans with CFS and only 10% of them have been previously diagnosed. This helps explain why there are only roughly 300 patient support groups around this country dedicated to the effective treatment and elimination of CSF.

• People between 40 to 60 years of age most often experience chronic fatigue. Studies have found that four out of five people with CFS are women, although women do not appear to have more severe symptoms than men with the disorder.

• Children and adolescents can also have CFS. Most studies indicate that girls are more likely than boys to develop CFS, although one study found the incidence of the syndrome to be equal in children of both genders. Untreated, CFS can persist in a vicious debilitating cycle that lasts for years.
## Chronic Fatigue Syndrome

### CFS Signs and Symptoms:

<table>
<thead>
<tr>
<th>Low grade fever</th>
<th>Tiredness</th>
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<tbody>
<tr>
<td>Aching muscles or joints</td>
<td>Confusion</td>
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<tr>
<td>Sore throat</td>
<td>Forgetfulness</td>
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<td>Swollen glands - flu like symptoms</td>
<td>Depression</td>
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### Environmental Factors that may contribute to CSF:

<table>
<thead>
<tr>
<th>Toxin</th>
<th>Chemicals</th>
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<tr>
<td>Pollutants</td>
<td>Chemicals in food</td>
</tr>
<tr>
<td>Non-degradable herbicides</td>
<td>Chemicals in water</td>
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<tr>
<td>Pesticides</td>
<td>Leaking chemical dumps</td>
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### Systems in the body that are affected by CFS:

<table>
<thead>
<tr>
<th>Endocrine</th>
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<tbody>
<tr>
<td>Nervous</td>
</tr>
<tr>
<td>Muscular</td>
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<tr>
<td>Skeletal</td>
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Adenosine Monophosphate (AMP)

- Adenosine monophosphate or AMP is a substance that is produced by our body, in every minute of the day, as part of the metabolic process. It is also a key component in certain enzyme reactions necessary for proper fat and carbohydrate metabolism. AMP appears to be beneficial for correcting low energy production due to mitochondrial dysfunction.

- Research shows that AMP is a precursor or building block for ATP.

- AMP is converted to ATP by the enzyme ATPase. ATP is known as the principal energy carrier in all living cells due to energy being stored in the “high energy” phosphate bonds. When a living cell breaks down or oxidizes, some of the energy released is caught and packaged into ATP. This stored energy can be subsequently released to meet metabolic demands.
What is Mitochondrial Dysfunction?

- Mitochondria are specialized parts of cells whose primary role is converting nutrients into energy. That energy enables your cells to carry out their many jobs in your body. However, if you have mitochondrial dysfunction, that energy isn't produced, thereby preventing your cells from doing their jobs properly. An “energy crisis” develops. Because more than 90 percent of the energy needed by the human body to function is generated by mitochondria, the effects of mitochondrial dysfunction can be far reaching as whole systems start to fail. Research has shown that cells of the brain, nerves, skeletal muscles, liver, heart, kidneys, ears, eyes, and pancreas seem to be particularly affected because of their high energy requirements.

- Mitochondrial dysfunction has been linked to various disorders including CFS, neuropathy, insulin resistance and autism. According to the United Mitochondrial Disease Foundation (“UMDF”), an individual affected by mitochondrial dysfunction may have strokes, seizures, gastrointestinal problems (reflux, vomiting, constipation, diarrhea), swallowing difficulties, failure to thrive, blindness, deafness, heart and kidney problems, muscle failure, heat/cold intolerance, diabetes, lactic acidosis, immune system problems and liver disease. Mitochondrial dysfunction is often an unpredictable, invisible disease. On a good day, a patient may look fine and healthy. They may have more energy and appear rested. However, on a bad day, patients appear tired or significantly ill. They are obviously fatigued and/or have significant illness.

- Repeated "bad days" can lead to decompensation and patients have difficulty returning to baseline.
How Adenosine Monophosphate (AMP) may help with CFS

• Dr. Harvey Sklar M.D. has authored several papers about the naturally occurring cellular metabolite adenosine monophosphate ("AMP"). It is one of the four purine nucleotides responsible for protein synthesis. It is believed that AMP levels in certain disease states are diminished and by replacing it, success in treating such conditions is possible.

• The late Dr. Harvey Sklar was known in the medical field as a pioneer for his research on AMP for treating symptoms of Chronic Fatigue Syndrome and various other diseases. He used AMP in combination with a careful diet and clean lifestyle to achieve optimal health benefits. Part of his protocol for using AMP in patients included the following supportive supplements and restrictions to help the body heal.

- No alcohol
- No caffeine
- No nicotine
- No "recreational drugs"
- No chocolate
- No nuts
- No stress
- Vitamin C 500 mg. per day minimum
- Vitamin B6 250 mg. per day
- Beta Carotene 12-15 mg. per day
- Vitamin E 800-1200 mg. per day

What is most exciting about AMP for CFS is there are virtually no negative side effects. Because it is a natural product, it is very well tolerated by patients.
Dr. Harvey Sklar

• Dr. Sklar successfully treated hundreds of CFS patients with AMP supplementation. In one case study, a female CFS patient came to him with complaints of extreme fatigue, constant headaches, loss of concentration, flu-like symptoms that would come and go, depression and an inability to cope with stress. The woman had suffered with these symptoms for more than five years, and they were progressively getting worse. She had been to 12 private physicians and several highly rated diagnostic hospitals. The patient never had one day without a headache, and some headaches were so severe they required strong injectable painkillers every four to six hours for several days. The pain would then subside enough for her oral medications to control it for a few days, then the cycle would repeat itself.

• Dr. Sklar treated her by intravenous chelation therapy daily (EDTA), vitamins C, B, magnesium and potassium. The patient was also placed on oral supplements, including vitamins A, E, beta carotene, digestive enzymes, copper, zinc and coenzyme Q10. Injections of adenosine monophosphate (AMP) were given six times per week.

• By the 30th treatment the patient was pain-free, with greatly improved energy levels and ability to get refreshing nights sleep. After the 47th treatment, the patient claimed “I’ve never felt better in my life.” Total treatment time was 8 weeks.

• This case along with many others make it clear to preventive-minded physicians what had been strongly suspected in past years, namely, that viruses cause long-term disease, inhibit or stop the healing process, and are responsible for many serious life-stealing maladies. All of these are related to suppression of the immune system, which when operating normally, enables the body to maintain a steady state of health.
The New England Journal of Medicine reports additional evidence of a link between CFS, obesity and biochemical abnormality. The researchers have speculated that low levels of adenosine triphosphatase predispose people to be overweight by causing fewer calories to be burned as heat and more to be stored as fat. ATPase is critical to the basic process of pumping sodium and potassium across cell membranes. This exchange generates an estimated 20% to 50% of the body’s total heat production and consumes considerable calories.
# Published Uses

## ADENOSINE MONOPHOSPHATE—OVER 50 YEARS OF PUBLISHED USES:

<table>
<thead>
<tr>
<th>Medical Condition</th>
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<tbody>
<tr>
<td>Obesity*</td>
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<tr>
<td>Labialis Zoster*</td>
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<tr>
<td>Immune System*</td>
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<tr>
<td>Shingles*</td>
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<tr>
<td>Energy*</td>
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<tr>
<td>Multiple Sclerosis*</td>
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<tr>
<td>Stress*</td>
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<tr>
<td>Pain*</td>
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<tr>
<td>Nervous System*</td>
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<tr>
<td>Bursitis, Tendinitis*</td>
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<tr>
<td>Sleep Patterns*</td>
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<tr>
<td>Chronic Thrombophlebitis*</td>
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<tr>
<td>Herpes Simplex*</td>
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<td>Varicose Vein Complications*</td>
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Physician’s Recommended Dosage

Beginning with week one (1)
• Administer 3 injections of 2cc AMP injectable adensoine. This allows the body to sustain the levels of adenosine between weekly injections.
• Oral dosage of My-B-Tabs™ 6 sublingual tablets daily for 30 days.
• Afterwards, suggested dose, 3 tablets per day.

Following week one (1)
• Administer weekly injections of 2cc AMP, or a combination of AMP injection and your choice of B12 or B-Complex. Make sure that a higher ratio of AMP to vitamin is used in order to maintain levels of ATP.

Home Care:
• Maintain ATP levels in between AMP injections, by supplementing with either sublingual forms of adenosine: My-B- Tabs™ or Myoden Spray™. (This does not replace the injection, but will allow ATP levels to sustain in between injections.)

• Suggested dose, 6 tablets or sprays per day for 30 days.
• Afterwards, 3 tablets or sprays per day.
• Once patient is feeling better, the AMP injections can be evaluated as to timely injections.
About Us

For more than 35 years, Legere Pharmaceuticals has partnered with thousands of licensed physicians to support them with the resources and products they need to integrate nutritional supplementation into their practices. As you implement nutritional approaches to care, call us at 800-528-3144, to learn how we can help you make a difference in the health of your patients.

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