



Key Points

- Grape seeds fight a wide range of cancers in numerous ways
- Suppressing cancer stem cells is the only way to cure the disease
- Pharmacological ‘magic bullet’ protects normal cells and makes cancer cells more vulnerable
- Grape seed extract can reduce or even prevent damage from strokes
- Studies indicate that grape seed extract can relieve migraine headaches

PLUS

- Dramatic increase in chronic diseases

ASK DR. BLAYLOCK

- Which supplements help leukemia?
- Should I take glutathione?

The Incredible Grape and Its Truly Miraculous Extract

In the recent past, there was a fad for consuming seeds from various plants, either ground by themselves in blenders or mixed with other nutrients, either raw or cooked. But since then, researchers have shown that some seeds contain very toxic compounds or are metabolized into even more toxic compounds once consumed. For instance, the cycad seed from the false saw palmetto plant was made into a flour by natives of Guam and other countries, and consumed in various products. It later was found to be a major culprit in the emergence of Parkinson’s-dementia complex on Guam, and was linked to ALS in other countries.

Despite some genuine dangers, other seeds have been found to contain very useful medicinal compounds. One of the best is the seeds from grapes, especially red grapes.

In this month’s issue of The Blaylock Wellness Report, I will tell you about the incredible medicinal benefits of the seeds (as well as other parts) of red grapes — not only for preventing diseases but also for treating the symptoms of many devastating disorders.

Grapes May Explain the ‘French Paradox’

The red grape contains a number of highly useful compounds, especially for preventive medicine. Its skin contains compounds called resveratrol or pterostilbenes, and the rest of the grape contains catechins, epicatechins, proanthocyanadins, and anthocyanins. Because of those compounds and others, whole grapes and grape juice have been shown to offer many medicinal benefits, including:

- Correcting insulin resistance
- Protecting the brain from neurodegenerative diseases
- Calming activated immune cells called microglia
- Reducing inflammation
- Acting as a powerful antioxidant
- Combating a number of cancers
- Reducing excitotoxicity
- Acting as an antiviral and antibacterial compound

- Promoting wound healing
- Reducing pain
- Preventing atherosclerosis

In fact, grapes have been suggested as an explanation for what is called the “French paradox,” the observation that despite a high-fat diet, French people have an extremely low incidence of cardiovascular disease compared to Americans. It was finally concluded that the high consumption of red wine among the French was protecting their cardiovascular systems.

This finding has been disputed, and other factors — including specialized fats — have been suggested for the low incidence of heart disease. But many scientists still credit red grapes as one of the (if not the single) keys to French heart health.

But there is no question that grape products are powerful and versatile antioxidants. And some of the most powerful protectants are found in the seeds.

As you will see, combining compounds from the skin of grapes with the seeds dramatically enhances the beneficial effects.

Grape Seeds Fight Cancer in Many Ways

A growing number of studies show that grape seed extract has powerful anticancer properties that are effective against many types of cancer, including:

- Breast cancer
- Prostate cancer
- Colon cancer

- Bladder cancer
- Leukemia
- Lung cancer
- Adenocarcinoma of the GI tract
- Head and neck cancers
- Melanomas
- Pancreatic cancer
- Skin cancer

The benefits come in the form of both prevention and treatment of existing cancers.

Grape seed extract (GSE) contains a complex mixture of oligomers of procyanidins, gallic acid, catechins, and epicatechin. The most powerful anticancer compounds in grape seed extract are the procyanidins and gallic acid.

One of the procyanidins, called proanthocyanadin, has been found to inhibit cancers in a number of ways, including suppressing cell-signaling mechanisms essential for cancer cell growth and invasion, inhibiting inflammatory cell-signaling, inhibiting the release of inflammatory cytokines, activating apoptosis (cell death) mechanisms called caspases and BAK activation, inhibiting cell cycle regulating proteins, and acting at other cancer cell checkpoints.¹

Compounds that inhibit a number of critical cancer mechanisms all at once are much more likely to control a cancer than chemotherapy drugs that attack only one or two mechanisms — which cancer cells can easily overcome.

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Attacking Colon Cancer at Its Source

Colon cancer is the third most fatal type of cancer, and there is a direct correlation between intestinal polyps and development of colon cancer.

Colon polyps arise from what are called aberrant crypt foci (ACF) deep within the folds of the intestines. One study of colon cancer in mice showed that grape seed extract reduced the number of polyps by 40 percent.²

Even more important was that the greatest reduction was seen in the larger polyps — 71 percent compared to 42 percent for smaller polyps. (Most cancers arise from the larger polyps.)

The researchers also found that GSE reduced proliferation of cancer cells by 80 percent to 86 percent, and increased the death of cancer cells (apoptosis) four to eight times more than normal.

GSE suppressed and killed tumor cells by inhibiting critical cell-signaling mechanisms such as COX-2, iNOS, beta-catenin, and cyclin D1. And because GSE is poorly absorbed from the stomach, high concentrations of the extract will concentrate in the colon, where it will be most effective.

In another study using a chemical to induce colon cancer in mice, researchers found that administering GSE at the same time as the cancer-causing substance reduced the number of ACF by 60 percent, and reduced multiplicity of ACF by 66 percent. That means a dramatic decrease in colon polyps, which are the source of colon cancer.³

Others have shown that a combination of grape seed extract and resveratrol enhanced the colon cancer killing effect even more.⁴

GSE also inhibits colon cancer growth and invasion by inhibiting a tumor growth factor called vascular endothelial growth factor (VEGF), and by suppressing angiogenesis — the formation of tumor blood vessels.⁵

Therefore, this one natural compound offers a powerful way to prevent colon cancer and to treat existing colon cancers, especially when it is combined with other anticancer compounds like curcumin, quercetin, DHA, baicalein, ellagic acid, and silymarin.

GSE also reduces colon cancer risk by powerfully inhibiting intestinal inflammation. This property makes it useful against inflammatory bowel diseases as well.⁶

But of all the observations about GSE, probably the most important is that the extract inhibits colon

Important for Prevention

Of course, prevention is far better than having to fight an existing cancer. In one test, mice were genetically engineered to develop prostate cancers (called adenocarcinomas), and researchers found that feeding the animals GSE over most of their lives strongly reduced the incidence of prostate cancers. The extract increased spontaneous killing of the prostate cancer cells by an impressive eight times.

In many cases, the male hormone testosterone stimulates the growth of prostate cancers, at least early in the course of the cancer. A recent study found that GSE could significantly suppress androgen (testosterone) receptors on prostate tumor cells by inhibiting an enzyme called histone acetyltransferase by some 30 percent to 80 percent, depending on the doses given.

cancer stem cells.⁷ Unless cancer stem cells are killed or suppressed, a cancer cannot be cured.

The vast majority of chemotherapy agents have no effect on cancer stem cells.

Inhibiting Prostate Cancer Enzymes

The components of grape seed extract are powerful antioxidants and free radical scavengers. And as noted, the extract contains a number of anticancer compounds. Of those, gallic acid is the most effective for killing prostate cancer cells.⁸

One interesting study using advanced, aggressive human prostate cancer cells implanted in mice found that GSE — in a dose of either 100 mg or 200 mg per day — led to a 59 percent to 73 percent decrease in tumor volume.⁹

GSE also reduced proliferation of tumor cells from 51 percent to 66 percent, depending on the dose.

The apoptosis index, a measure of induced spontaneous destruction of cancer cells, increased three to four times.

In all these studies, the cancer-killing effect was dose-dependent — meaning the higher the dose of GSE, the greater the tumor-killing effect.

It has been shown that insulin-like growth factor-1 (IGF-1) stimulates tumor growth, and that insulin-like growth factor binding protein-3 (IGFBP-3) — when present in high levels —

inhibited this effect. That means it helped bring tumor growth under control.

Animals fed the grape seed extract had much higher IGFBP-3 levels.

Angiogenesis is another process that stimulates tumor growth. Without these blood vessels, tumors would shrink and die. As noted, GSE powerfully suppresses the compound VEGF, which drives angiogenesis.

Another way GSE kills prostate cancers is by inhibiting an enzyme called aromatase, which converts testosterone into estrogen.

Studies have shown that prostate tumors have much higher levels of aromatase. What this enzyme does is produce very high levels of estrogen within the prostate itself, which is thought to play a major role in prostate cancer growth and invasion.

In addition, there is growing evidence that estrogen is playing a role along with androgens like testosterone in promoting prostate cancer development, progression, and invasion.¹⁰⁻¹²

So far, studies suggest that androgens alone cannot induce prostate cancer, but when they are combined with estrogens the combination can lead to induction of prostate cancers.

Keep in mind that these estrogens do not come from the bloodstream, but rather are produced locally within the prostate gland by aromatase.

It has been observed that prostate cancer and breast cancer have many common traits, including elevation of the aromatase enzyme. Phytoestrogens from soy may reduce the incidence of both prostate and breast cancers, but at least in cases of breast cancer, soy phytoestrogen stimulates cancer growth, tumor invasion, and metastasis.

It is also known that soy can increase aromatase enzyme levels in the breast. It may do the same in cases of prostate cancer.

Studies have shown that GSE powerfully suppresses aromatase and significantly reduces the size of tumors in experimental animals.¹³ At higher doses, GSE inhibited aromatase activity from 70 percent to 80 percent, depending on the dose used.

In fact, the extract not only reduced aromatase activity, it also suppressed the genes controlling aromatase activity.

What we see is that GSE inhibits prostate cancer by a great number of mechanisms critical for prostate

cancer development and growth, as well as reducing invasion and metastasis.

‘Magic Bullet’ Against Breast Cancer

Grape seed extract has powerful effects against both hormone-sensitive and hormone-insensitive forms of breast cancer.¹⁶ It has also been shown to significantly enhance the effects of the principle chemotherapy drug, doxorubicin, that is used to treat breast cancer.

In addition, GSE reduces complications caused by this drug — especially damage to the heart.^{14, 15}

Cardiac problems are one of the principle complications of doxorubicin, caused by free radical damage to the heart muscle. That damage can lead to a severe deterioration of heart function.

In animal studies, GSE protected the heart from damage by doxorubicin. The extract’s very strong antioxidant effects were also shown to improve cardiac muscle function significantly.

Combining GSE with ginkgo biloba enhanced the protective effect against doxorubicin.¹⁶

One of the benefits of using natural anticancer plant extracts is that they protect normal cells from chemotherapy while greatly increasing the killing of cancer cells by the same chemotherapy agents.

We call this process the pharmacological “magic bullet” because these natural anticancer products selectively target only cancer cells.¹⁷

The vast majority of cancer patients I have treated with these compounds have tolerated chemotherapy with few or even no side effects — even when a very high dose of chemotherapy was used.

One of the driving forces in estrogen-sensitive breast cancer is production of estrogen from androgen within the breast ductal system. As with prostate cancer, the process is driven by the enzyme aromatase.

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BLAYLOCK TIP

5 Common Signs of Frailty

As we age, many people's adaptive immune systems weaken, making them much more susceptible to infections of all kinds. This also means that it will take them a lot longer to recover from infections.

Every year, I hear from people who say they suffered from the flu for weeks or even months before they could get over it. That is a very dangerous sign of a weakened adaptive immune system.

New studies are finding that when the immune system ages this way, it not only increases the risk for infection, it also increases the risk of developing autoimmune diseases and neurodegenerative diseases such as Alzheimer's and Parkinson's.

In the past, it was thought that autoimmune diseases occurred when a healthy immune system

accidentally mistook part of the body's own cells for a foreign invader. This is a phenomenon referred to as "molecular mimicry." Now, however, we know that these types of diseases can only occur if the immune system is abnormal — that is, if the adaptive immune system is not working properly.

When a person's immune system is normal and balanced, it can keep these infections silent and harmless. But when the adaptive immune system is broken, the innate system then actually becomes the enemy, as it tries to attack awakened infections. As a result, the constant immune reaction fills the body with harmful immune compounds such as cytokines, chemokines, and interferons.

Over several years, this condition

can cause so much damage to the body that a person becomes physically debilitated and mentally diminished. We call this senescence or frailty.

There are five signs of frailty:

1. Loss of muscle tissue
2. Weak hand grip
3. Exhaustion
4. Reduced speed of walking
5. Overall reduced activity

This frailty is caused by a state of ongoing inflammation caused by unrelenting immune activation.

The risk of becoming frail can be predicted by certain laboratory tests, such as tests that show an elevated level of the inflammatory cytokine interleukin-6 (IL-6) or having a positive test for an infection from cytomegalovirus, herpes virus, or Lyme disease.

Just as with prostate cancer, GSE has been shown to powerfully suppress aromatase in cases of breast cancer, inhibiting its growth, tumor invasion, and metastasis.¹⁵

Aromatase production is stimulated by hormones and soy extract, which can result in extremely high levels of estrogen in the breast ductal system even when circulating levels of estrogen are normal or low. Normally, estrogen levels are 40 times higher in the breast ductal system than in the blood.¹⁸

In cases of estrogen-sensitive breast cancer, production of high levels of local estrogens can stimulate the growth and spread of tumors.

Once again, GSE has been shown to powerfully inhibit the spread of both estrogen-positive and estrogen-negative breast cancers.^{19,20}

GSE inhibits breast cancer invasion and metastasis, which is the process that makes this type of cancer deadly and incurable with traditional treatments.²¹ One way the cancer does this is by inhibiting a set of enzymes called MMPs, which drive tumor invasion.

Curcumin also powerfully inhibits this invasion enzyme. Combining curcumin with GSE would be even more effective.²²

Finally, GSE protects against breast cancer by deterring angiogenesis.

By inhibiting critical cell-signaling systems used by cancer cells, GSE makes these cancer cells commit suicide (apoptosis).

Along with other breast-cancer inhibiting compounds such as curcumin, silymarin, baicalein, resveratrol, pterostilbene, ellagic acid, and quercetin, GSE offers a very powerful synergistic combination to defeat this cancer with maximum safety.

Other Cancers Suppressed by Grape Seed Extract

In addition to protecting against prostate and breast cancers, GSE has shown impressive results against several types of skin cancer, including melanomas.^{23,24} One study using a highly metastatic form of melanoma found that GSE could powerfully suppress the cancer's migration — which means less chance of metastasis.

In addition, the extract inhibits what is called epithelial-mesenchymal transition. That means it suppresses the malignant propensity of melanoma cells.

GSE did this by inhibiting the major cell factors responsible for cancer cell migration and invasion:

- COX-2
- ERK ½
- MEK
- NFκB

GSE has also been shown to significantly suppress human leukemia cells.²⁵ In combination with quercetin, curcumin, and baicalein, it acts even more powerfully.

Other studies have demonstrated powerful effects against pancreatic cancer, especially by suppressing tumor invasion, which is what makes cancer deadly.²⁶

Another study found that GSE significantly inhibited migration of pancreatic cancer cells and inhibited epithelial-mesenchymal transition.²⁷

Other research has shown that curcumin also inhibits pancreatic cancer. Together, curcumin and GSE offer a safe, powerful treatment option for this deadly cancer.

Lung cancers, head and neck cancers, bladder cancer, and cervical cancer have all responded to grape seed extract as well.²⁸⁻³⁰

It's important to understand that in all these studies, the effectiveness was dose-related: The higher the dose, the better the response. In most cases, high doses were necessary.

Absorption is another major factor to consider. While GSE is considered water-soluble, it is not completely water-soluble, so it can be rather difficult to absorb.

Luckily, specially designed forms of high-absorption GSE — the phytosome form — are now available to the public.

Most often, the phytosome form of GSE comes in 100 mg capsules. Cancer patients can take four 100 mg capsules three to four times a day to reach high levels of the extract in their systems. Mixed with water it is very bitter, but it appears to be better absorbed that way.

Finally, GSE can help prevent some complications of cancer, such as a loss of muscle mass and impaired wound healing.

In one study, researchers examined patients who had surgical wounds on their skin. The scientists found that grape seed extract cream accelerated the complete healing of the wounds from the normal 14 days to eight days — just more than half the time.³¹

Another study used a model of human frailty, a condition in which a great deal of muscle is lost. Animals given the GSE enhanced their muscle mass, reduced protein loss in the muscles, and protected the muscle cells from apoptosis.³²

GSE has also been found to significantly protect various organs from damage by chemotherapy agents, such as cisplatin kidney damage and damage to the heart.^{33,34}

Vital for Protecting the Brain

One of the most obvious ways grape seed extract protects the brain is its antioxidant effect, which is more powerful than either vitamin C or vitamin E. Yet its protective effects go far beyond that.

It is known that a high-fat diet (consisting of omega-6 fats, in particular) can result in degenerative changes in the brains of experimental animals. The same thing probably happens in humans.

One study found that feeding a high-fat diet to adult rats led to free radical and lipid peroxidation damage within the hippocampus of the brain, and reduced several important brain antioxidant systems, such as glutathione peroxidase.³⁵

Feeding the rats grape seed extract along with the high-fat diet protected the hippocampus and prevented a loss of cognitive ability.

GSE's protection also includes the ability to stimulate formation of new brain cells within the dentate gyrus of the hippocampus, an area that is critical for memory.³⁶

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Even more significant was the fact that GSE not only stimulated the formation of neurons in the dentate gyrus, but those neurons differentiated into fully mature neurons with well-functioning dendrites that were fully functional and integrated. That means they worked just like normal neurons.

Another way GSE safeguards the brain is by blocking excitotoxicity, a mechanism by which degenerative brain disorders, strokes, and brain injuries do damage.

In one study, GSE blocked activation of several glutamate receptors (NMDA, AMPA and mGluR type receptors), thereby preventing excitotoxicity from causing damage.³⁷

GSE also blocked formation of nitric oxide, which plays a major role in brain excitotoxicity.

I have written many times before that one of the central mechanisms in degenerative brain diseases, strokes, trauma, and other brain disorders is a process called immunoexcitotoxicity — which is the interaction of inflammatory mechanisms with excitotoxicity.

As I've pointed out, GSE is a potent inhibitor of excitotoxicity. It has been shown to inhibit microglial activation in a mouse model of Alzheimer's disease by as much as 70 percent, which inhibits both brain inflammation and excitotoxicity.³⁸

This indicates that GSE is a perfect compound to inhibit the full spectrum of immunoexcitotoxicity.

Several studies indicate that GSE may be very useful for preventing or reducing damage caused by strokes. In one study that used an animal stroke model, researchers found pretreatment with GSE reduced the loss of brain tissue and improved the survival of neurons in the hippocampus and thalamus.³⁹

Another study found that memory impairment — which is quite common after strokes — improved significantly when GSE was taken prior to the stroke.⁴⁰

Studies have also shown that GSE can completely reverse stroke damage, including oxidation of lipids and proteins within the brain.

It also prevents loss of antioxidant defenses, and prevents disturbed metabolism of iron, copper, manganese, and zinc.⁴¹

Compelling evidence suggests that GSE may be a major weapon against neurodegenerative diseases, especially Alzheimer's disease and other conditions

Grape Seed Extract and Pain

There is considerable evidence that chronic pain is caused by activation of the immune cells — microglia or macrophages — within areas of the nervous system associated with pain, such as the dorsal root ganglion, trigeminal ganglion, and thalamus.

Once these immune cells are chronically activated, they release powerful inflammatory mediators (cytokines, chemokines, prostaglandins, and substance P) as well as excitotoxins, and the interaction between the two (immunoexcitotoxicity) keeps pain nerves chronically activated.

Relieving this pain requires a reduction in both inflammation and excitotoxicity. Grape seed extract has been shown to relieve chronic pain in a number of experimental studies. In one study, researchers found that GSE significantly inhibited microglia and reduced excitotoxicity, which reduced immunoexcitotoxic stimulation of chronic facial pain. Grape seed extract also holds promise for relieving migraines, which also arise from microglial activation within the trigeminal ganglion.

Another condition for which GSE has had excellent results is herpes zoster (shingles) — which can cause very intense pain. Combining it with curcumin, silymarin, hesperidin, naringenin, quercetin, and St. John's wort also dramatically relieves chronic nerve pain.

associated with the aggregation of tau protein in the brain (called tauopathies).

It has also been shown that GSE inhibits the ability of beta-amyloid — the toxic substance that accumulates in Alzheimer's patients' brains — to activate microglia and trigger immunoexcitotoxicity.^{42, 43}

As people age, their microglia begin to malfunction, leading to a state of microglial "priming." This is very dangerous, because any immune activation, anywhere in the body, can cause these primed microglia to overreact, leading to devastating immunoexcitotoxicity. A study showed that many flavonoids can restore microglia to a more youthful state and prevent this overreaction. GSE can also reduce other age-related changes in the brain.⁴⁴

A number of studies are finding that GSE can prevent tau protein from aggregating. This aggregation of protein forms one of the most common pathological features of several dementia-related brain diseases,

BLAYLOCK TIP**Lymphatic System: Misunderstood But Vital**

The lymphatic system is the most ignored part of the circulatory system, which is unfortunate as it plays a major role in health and disease. A friend of mine, Dr. Gerald Lemole, has been a leader in researching the role of the lymphatic system in cardiovascular disease, and was the first to propose that impairment of the lymphatic flow from the walls of blood vessels might play a major role in atherosclerosis. Since then, others have supported his hypothesis.

Dr. Lemole, a longtime professor of cardiovascular surgery at Temple University School of Medicine, is a medical visionary and a deep thinker.

What he observed is that the larger arteries have thick walls that

are drained by very small lymphatic vessels. Because these lymphatic vessels are located along the outer rim of the blood vessel wall, macrophages filled with oxidized fats and cholesterol must travel a long way for removal from the vessel wall.

Furthermore, the oxidized fats inhibit the movement of the cholesterol-filled macrophages, which are then unable to reach the lymphatics for removal.

As a result, the oxidized fats and cholesterol get stuck within the walls of the arteries and forms atherosclerotic plaque, which can then lead to heart attacks and strokes.

He notes that a number of things can impair lymphatic drainage of the

arterial wall, including inflammation, microparticulate automobile exhaust, stress, occult infections, and heavy metals.

The good news is that there are a number of simple ways to increase lymphatic flow: deep breathing exercises, physical exercise, relaxing prayer, and the use of certain nutrient supplements, such as hesperidin and diosmin. Dr. Lemole also told me that the heart itself is dependent on lymphatic drainage and that these same methods can improve heart function.

Several studies have shown that such exercises and deep breathing can significantly improve the flow within the lymphatic circulatory system.

such as supranuclear palsy, corticobasal degeneration, and Alzheimer's disease, all of which are progressive neurodegenerative diseases.

One study found that GSE prevented the formation of tau aggregates and could even hold promise for preventing all tauopathies.⁴⁵ This would be a major advance in brain protection, especially when combined with the other flavonoids known to inhibit microglial activation:

- Apigenin
- Luteolin
- Silymarin
- Curcumin
- Quercetin
- Fisetin

Another interesting study used Concord grape juice and resveratrol along with grape seed extract and demonstrated even better brain protection.⁴⁶

Grape seed extract, blueberry extract, and Chinese mulberry extract have all been shown to protect the brain against Parkinson's disease induced by exposure to rotenone — a common pesticide.⁴⁷

A loss of cognitive function can occur in people who suffer seizures, especially frequently occurring

seizures. Using a rat model of seizures, researchers found that when GSE was given for a prolonged period before the seizures started, a loss of cognitive function could be avoided.⁴⁸

Most memory loss related to seizures is secondary to damage in the hippocampus caused by free radicals and immunoexcitotoxicity. GSE improved mitochondrial energy production and greatly reduced free radical creation and lipid peroxidation in the brain. This helps control seizures as well as prevent seizure-associated brain damage.

Diabetics, especially insulin-dependent diabetics, are at a high risk of widespread brain damage — partly because of frequent episodes of hypoglycemia and high blood sugar. High levels or very low levels of sugar are toxic to the brain; both trigger immunoexcitotoxicity, which is responsible for most diabetic neurological damage.

GSE has also been shown to significantly reduce immune-induced brain inflammation and prevent associated brain damage.^{49,50}

More Benefits From Grape Seed Extract

While the powerful antioxidant effect of grape

seed extract plays a major role in cardiovascular protection, other mechanisms are also at play, including reduction in inflammation, reducing excitotoxicity, strengthening collagen, increasing mitochondrial energy production, protecting protein structures, preventing lipid peroxidation, and blocking apoptosis.

For people with hypertension, lowering blood pressure plays a major role in protecting against atherosclerosis, and therefore heart disease and strokes.

A review of nine randomized studies found that GSE significantly lowered elevated systolic blood pressure.⁵¹ A more recent analysis of 16 randomized studies using GSE in hypertensive people found that the extract significantly lowered both systolic and diastolic blood pressure, especially in younger individuals and obese people with metabolic disorders.⁵²

But GSE had no effect on people with normal blood pressure.

In animal studies, the extract improved heart function, reduced the area of heart damage in heart attacks (infarcts), reduced fibrillation (a major cause of death with heart attacks), and reduced death of heart cells. GSE has also been shown to reduce the formation of foam cells, which play a central role in atherosclerosis.⁵³

Another very important benefit is that grape seed extract ameliorated metabolic syndrome, which would not only protect the cardiovascular system but the brain as well.⁵⁴

Arthritis of every type is greatly improved by GSE. In part, this is because GSE is a potent anti-inflammatory and antioxidant. It also regulates special immune cells associated with arthritis.

In one animal study of a model of rheumatoid arthritis, researchers found that GSE reduced inflammation and tissue destruction associated with this form of arthritis.⁵⁵

The extract increased anti-inflammatory lymphocytes (Tregs) and decreased Th1 inflammatory cytokines, which are a major source of destruction in rheumatoid arthritis.

Other medicinal effects of GSE include reducing mercury toxicity, improving menopausal symptoms, protecting the liver, and reducing asthma symptoms.

Interestingly, it was also shown to protect against sleep-deprivation associated cognitive dysfunction —

difficulty thinking after losing sleep.⁵⁶⁻⁶⁰ This is a major problem that is rarely addressed in our society.

You can see that GSE offers a great deal of benefit for some serious disorders, and it is safe even in high doses. That is important because the benefits are dose-related — the higher the dose, the better the results.

You can purchase GSE in a powdered form, which comes without fillers and is partially soluble in water, improving its bioavailability.

There are also a number of phytosome brands that are well-absorbed. For prevention of disease, the dose of the phytosome form would be 200 mg three times a day. Treating diseases may require higher doses, up to 600 mg three to four times a day. ■

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Health and Nutrition Updates

Resveratrol: Another Grape Compound Fights Inflammation

As I write in this issue of The Blaylock Wellness Report, grapes contain many compounds that are useful for preventing and treating disease. One compound most people have heard of is resveratrol, which is extracted from the skin of grapes. It is also found in other foods, including peanut butter.

Resveratrol is a phytoalexin, a type of compound that protects plants from damage from the sun's UV rays and fungi. The highest levels of phytoalexins are found in grapes exposed to the intense concentration of solar rays — that is, grapes grown on mountain tops.

One of the outstanding properties of resveratrol is its anti-inflammatory effect. Because most neurodegenerative diseases (and many other diseases) are driven by inflammation, resveratrol holds promise in preventing and treating a wide range of disorders.

A study in the "Journal of Neuroinflammation" discovered that resveratrol suppressed a special enzyme critical for generating the inflammatory compound PGE2. This enzyme (mPGES-1) was profoundly inhibited by resveratrol, making it useful for suppressing inflammation without the complications — such as heart attacks — seen with COX-2 inhibitors, which also suppress PGE2.

Resveratrol also suppressed COX-1 enzyme in microglia. That enzyme was shown to be critical for microglia-induced brain inflammation and excitotoxicity (immunoexcitotoxicity).

Resveratrol readily enters the brain from the blood. It also corrects insulin resistance, a condition recently linked to Alzheimer's disease.

Another compound that is closely related chemically to resveratrol is called pterostilbene. Research indicates that it has similar biological and biochemical effects to resveratrol, but is absorbed four times better and enters the brain easily.

Both of these grape-derived compounds are available as supplements.

Dramatic Increase in Chronic Diseases

Normally, when we see a dramatic increase in a disease, scientists and physicians become concerned

enough to look seriously for root causes. According to medical writer Richard Lear, recent studies have shown that four categories of disease have increased exponentially in just one generation: autoimmune, neurological, metabolic, and inflammatory disorders.

Studies show the following increases:

- Chronic fatigue syndrome: 11,027 percent
- Bipolar disease in the young: 10,833 percent
- Fibromyalgia: 7,727 percent
- Autism: 2,094 percent
- Celiac disease: 1,111 percent
- Lupus: 787 percent
- Alzheimer's disease: 299 percent
- Inflammatory bowel disease: 120 percent

Lear notes that overall the incidence of more than 40 diseases have doubled in the past generation.

Yet the silence from the public health agencies and scientific community is deafening. While Lear focuses on a biochemical cause for these events, the more important question is: Why is this happening?

What has changed over the past generation to explain these statistics? In fact, several things can be pointed to: a massive expansion of the vaccine schedules, not just for the very young, but all age groups; a dramatic increase in the use of glyphosate (Roundup) and other pesticides/herbicides; widespread use of aspartame; increased consumption of soy products and excitotoxic food additives; widespread exposure to fluoride and mercury; and a widespread exposure to aluminum in highly toxic forms.

Most medical journals refuse to publish articles on these subjects, even when submitted by highly credentialed experts in their fields. As a consequence, the public is going to have to demand these people be given a forum in which to discuss their ideas.

My friend Dr. Miguel Faria recently published an article on this very subject for "The Telegraph."

All of the suspected causes for this massive increase in degenerative diseases are also increasing — especially the use of vaccines.

Yet the government in all its wisdom is seriously considering making these dangerous vaccines mandatory for all. That would produce a medical disaster beyond anything we have ever seen. ■



Ask Dr. Blaylock

Attention Readers:

Dr. Blaylock welcomes any questions or comments you would like to share.

Each month, he will select a few to be published and answered in the newsletter.

Please remember that he cannot answer every question.

When submitting a question or comment, please include full name, city, and state.

Please e-mail the doctor at: askblaylock@newsmax.com.

How Much Taurine Is Needed?

Q: My brother-in-law, who is in his late 70s, has had atrial fibrillation for years. We are interested in taurine. How do you measure taurine in the body and how much is needed for good health?

— Loyce K., Dallas, Ga.

A: Recent evidence suggests that atrial fibrillation is caused by altered calcium metabolism within the heart muscle cells, causing generation of high levels of free radicals.

Excess glutamate is also playing a major role. There is compelling evidence that abnormal bile acids also play a role.

Control of this condition may require an increase in magnesium intake along with taurine, both of which reduce glutamate excitotoxicity. Taurine also corrects bile acid abnormalities.

In this case, the dose of taurine would be 1,000 mg three times a day taken 10 minutes before each meal.

You should also avoid all glutamate additives, as well as aspartame.

Grape seed extract, as the GSE phytosome, in a dose of 200 mg three times a day has powerful antioxidant and cardioprotective effects.

In fact, all antioxidants are helpful for reducing atrial fibrillation.

Which Supplements Help Leukemia?

Q: I was recently diagnosed with chronic lymphatic leukemia. Do you have any recommendations of supplements or vitamins that would be helpful?

— Mary N., Grand Rapids, Mich.

A: I wrote extensively on this subject in my book “Natural Strategies for Cancer Patients.” Curcumin,

quercetin, grape seed extract phytosome, hesperidin, resveratrol, and baicalein have all shown anti-leukemic effects. Beta-glucan has also been shown to be effective.

EGCG, a component from green and white tea, also has antileukemic effects. The highest concentration (94 percent) of EGCG comes in a product called Teavigo.

Should I Take Glutathione?

Q: I’m 86 years old and read that levels of glutathione fall in all organs after age 45. Should I therefore take 100 mg of glutathione every day?

— Julius S., Novato, Calif.

A: All antioxidant flavonoids raise glutathione levels. The best way other than using these compounds, is to take 750 mg of N-acetyl-L-cysteine (NAC) twice a day with a meal. This directly raises glutathione levels in all cells.

Glutathione itself is poorly absorbed and is poorly utilized by the brain.

How Can I Relieve Migraines?

Q: I had my first migraine as a toddler, and I am now 40. I stay away from most glutamate as well as aspartame, sulfites, and nitrates/nitrites. What should I do to alleviate the headaches?

— William I., Reno, Nev.

A: Reactive hypoglycemia is strongly linked to migraine attacks. Therefore, you should avoid all sugars, aspartame, and high glycemic carbohydrates. R-lipoic acid can cause hypoglycemia and should only be taken with a full meal. Magnesium is a major weapon against migraines and pyruvate corrects hypoglycemia.

Calcium makes these headaches worse, as do glutamate and other excitotoxins.

A product called palmitoylethanolamine (PEA) has been shown to significantly reduce migraine attacks. Only the micronized and ultramicronized forms work.

Beta-hydroxybutyrate (Ketoforce) is a short-chain fatty acid that also reduces hypoglycemia and migraines. MCT oil can also reduce hypoglycemia triggered migraines.

What's Best Breast Cancer Treatment?

Q: I have been on tamoxifen for one and a half years. My oncologist recommends I continue for five years. What is your opinion of tamoxifen and other drugs to prevent recurrence of breast cancer?

— Judy N., Jefferson City, Mo.

A: Tamoxifen is associated with a number of serious complications and I do not recommend it.

Far more useful and safer for preventing a recurrence of breast cancer are the natural anticancer

compounds, especially silymarin, curcumin, quercetin, hesperidin, baicalein, grape seed extract phytosome, mixed tocotrienols, and dry vitamin E (vitamin E succinate).

These all have a high margin of safety, prevent tumor invasion, tumor growth, and metastasis and can be taken for a lifetime. They also help with arthritis and joint pains.

Glutamate and glutamine are major stimulants for cancer growth and should be avoided.

Is Liposomal Vitamin C Effective?

Q: I am interested in liposomal vitamin C. Would you please share your thoughts and opinions on this version of vitamin C?

— Deane M., Yorktown, Va.

A: Liposomal vitamin C is a high-absorption form of vitamin C. It can be used safely.

It is especially useful in preventing the cytokine storm associated with the flu virus. ■

To renew or subscribe to The Blaylock Wellness Report go to:
NewsmaxHealth.com/Newsletters or call 1-800-485-4350

About Dr. Blaylock

Dr. Russell Blaylock is a nationally recognized, board-certified neurosurgeon, health practitioner, author, and lecturer. He attended the Louisiana State University School of Medicine in New Orleans and completed his internship and neurosurgical residency at the Medical University of South Carolina in Charleston, S.C. For 25 years, he has practiced neurosurgery in addition to having a nutritional practice. He recently retired from his neurosurgical duties to devote his full attention to nutritional studies and research. Dr. Blaylock has authored four books on nutrition and wellness, including "Excitotoxins: The Taste That Kills," "Health and Nutrition Secrets That Can Save Your Life," "Natural Strategies for Cancer Patients," and his most recent work, "Cellular and Molecular Biology of Autism Spectrum Disorders," edited by Anna Strunecka. An in-demand guest for radio and television programs, he lectures extensively to both lay and professional medical audiences on a variety of nutrition related subjects.

He is the 2004 recipient of the Integrity in Science Award granted by the Weston A. Price Foundation. He serves as an assistant editor-in-chief for the journal "Surgical Neurology International." He was also a lecturer for the Foundation on Anti-Aging and Regenerative Medicine. At present, he is a reviewer for the journal "Food & Chemical Toxicology" and other journals.

Dr. Blaylock previously served as clinical assistant professor of neurosurgery at the University of Mississippi Medical Center in Jackson, Miss.

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