In this *Terry Talks Nutrition*, I’m going to discuss the various ways that grape seed extracts stop cancer and share some of the astonishing results of research on OPCs from French grape seed to prevent the return of cancer.

**Concentrated, Cancer-Fighting Power**

OPCs from grape seed are one of the most studied, and most valuable, components of this fruit. One of the reasons that grape seed extracts are so effective is that they concentrate the beneficial compounds that can stop DNA damage that leads to cancer. In fact, an Italian review found that grape seeds have higher phenolic acid and flavonoid content (up to 70 percent of some extracts) than whole fruit extracts or grape skin.

**Colorectal Cancer**

Colorectal cancer has the second highest mortality rate in the United States. Conventional treatments for colorectal cancer have many side effects, are rarely 100 percent effective, and can take a real toll on quality of life. There is a real need for effective treatments that don’t come with toxic side effects, and new research has pointed to OPCs from grape seed as the answer to stopping this disease.

Breakthrough research at Baylor University in Texas has examined the effect of a standardized OPC extract from French grape seed (VX1®) on cancer stem cells – the “seeds” left behind after chemotherapy drugs kill cancer cells. These stem cells can otherwise lead to cancer recurrence and new tumor formation. The scientists at Baylor found that the OPCs from French grape seed eliminated cancer stem cells by inhibiting a pathway in the body called HIPPO-Yap. This pathway is necessary for cancer stem cell survival and is known to lead to cancer cell formation.

After exposing colon cancer cells to this grape seed extract, the number of live cancer cells was reduced by 70 to 80 percent. In an animal model of colon cancer using the same OPC French grape seed, tumor growth was suppressed up to 90 percent – an astonishing level. Nothing has ever before been found to block or inhibit the HIPPO-Yap pathway, so these are unprecedented new findings.

Additional research at Baylor with this same French grape seed found that it affects the mechanics behind cancer cell replication. The OPCs from the extract were more effective at stopping the DNA replication and proliferation of colon cancer cells compared to untreated cancer cells.

Amazing new research results are proving just how powerful these natural medicines are at stopping cancer. In fact, some of the latest findings about OPCs from French grape seed show that they can:

- Destroy the “seeds” left by cancer cells and prevent its return
- Stop the inflammation and DNA damage that leads to cancer development
- Inhibit the spread of cancer cells into nearby tissues (metastasis)
- Prevent the creation of blood vessels within cancer cells that feed tumors
- Directly kill cancer cells

I recommend taking 150-1,200 mg of French grape seed extract daily.
Inhibiting Cancer Cell Growth with Grape Seed OPCs

to a plain grape seed extract that wasn’t specially standardized for specific OPCs.
These OPCs targeted specific microRNAs — our body’s engineers that replicate cancer cells — and suppressed cancer by directly inducing apoptosis (cancer cell death). It also boosted levels of tumor suppressor genes and downregulated colorectal cancer tumor promoting genes.

Although the research study was on colorectal cancer, there are similar types of activity across nearly all kinds of malignancies. The researchers found that the grape seed worked along so many tracks that in their study they mention, “…no [other] single clinical therapeutic has the ability to effectively block multiple oncogenic pathways…” — which is high praise for the power of these OPCs.

They also found that the OPCs from this extract are so effective that they estimated the human dosage required to decrease tumor growth is only 240 mg per day.

There are more studies currently underway with this extract. They will, no doubt, push the boundaries of what we know about OPCs from grape seed and how critical they are for results. One thing I’m certain of — the results will be exciting and change our understanding of the potential of grape seed OPCs.

Breast and Prostate Cancer
For American women, breast cancer is, aside from skin cancer, the most common form of the disease and about one in eight women will develop it in their lifetime. While family history can increase risk, it is only part of the overall picture. In fact, 85 percent of breast cancer cases occur in women with no family history of the disease. That’s a frightening thought, but it also indicates that there are lifestyle choices that can reduce the risk as well. Grape seed extract can be part of that — even incorporated into standard cancer therapies.

For example, a cell study examined the effect of grape seed extract on breast cancer cells when used alone or with conventional treatment. Their results showed that the two interventions worked well together, but that grape seed extract alone was a strong inhibitor of breast cancer cells.

One of the ways that grape seed extracts can affect breast cancer — and prostate cancer — is because they inhibit aromatase, an enzyme that converts androgen into estrogen. Breast and prostate cancer tissues typically have higher levels of aromatase. A study published in the journal Cancer Research showed that grape seed extract inhibited aromatase activity and reduced growth in MCF-7 breast cancer cells. The researchers concluded, “We believe that these results are exciting in that they show grape seed extract to be potentially useful in the prevention/treatment of hormone-dependent breast cancer through the inhibition of aromatase activity as well as its expression.” I think this is very exciting news. It shows that grape seed extract may have equal actions to synthetic aromatase inhibitors like tamoxifen, but without the side effects.

As I mentioned, prostate cancer develops along some similar causes as breast cancer. And prostate cancer is a sadly common condition, second only to skin cancer for men, according to the American Cancer Society.

Research at the University of Colorado examined the effect of grape seed extract on prostate cancer cells and found that proanthocyanidin fractions from grape seed extract had the greatest effect of inhibiting — and killing off — tumor cells.

Other cell studies at the University of Colorado show that the extract kills prostate cancer cells by stopping the inflammatory pathways that set them up to become cancerous.

One of those pathways — the Nf-kB pathway — is heavily involved in tumor development. The connection to cancer is one I’ve talked about before — constant inflammation produces damaged cells and creates the conditions for tumors. It also makes the body resistant to chemotherapy and radiation treatment. So you’re beginning to see a realization in the scientific community that grape seed extract could at least be a partner therapeutic to prostate cancer and help conventional practice be more effective.

Grape seed extract also prevents cancer cells from connecting to blood vessels, and depriving them of oxygen and nutrients. The process of blood vessel creation — angiogenesis — involves quite a few steps. And in each of these, grape seed extract can intervene to stop it from occurring. One of the natural proteins most associated with the development of blood vessel growth is Vascular Endothelial Growth Factor (VEGF). Laboratory work at the University of Colorado showed that grape seed extract slowed this process and inhibited tumor volume by up to 73 percent and tumor weight by up to 47 percent.

Make Your Grape Seed Count!
Like any nutrient, the key compounds need to get into your body and bloodstream (be absorbed) before you’ll see any benefits. That’s why I recommend French grape seed that provides only low-molecular weight OPCs. Large molecules from grape seed (often referred to as tannins) are not absorbed and do not have benefits for your health. It is the small, absorbable OPCs that will give you the cancer-fighting protection you need.

When in doubt, always consult your physician or healthcare practitioner. This article is intended to provide you with information to maintain your health.