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### Branch Retinal Vein Occlusion (BRVO) Prevention

BRVO, the blockage of a medium size vein in the retina, the back inside of the eye, causes preventable hemorrhage and vision loss.

In the patient whose retina I showed you in our imaging data base, significant damage to the nearby macula (retinal centre - area responsible for detailed vision) caused the huge vision loss I demonstrated to you – decrease from best corrected vision of 20/30 ( a bit less than 20/20 ) to 20/200 (legally blind).

The cause here was premature hardening of the medium size arteries (arteriosclerosis), the most common causes of which include genetic risk factors, smoking and high blood pressure. The most significant ways to maintain good blood pressure include: keeping salt intake less than 1.500 – 2.000 mg./day, weight control, regular exercise, relaxation and when the above is insufficient, medication per your physician's advice. Other important BRVO risk factors include hypertension, high blood cholesterol, diabetes and certain blood disorders.

Digital retinal imaging with peripheral images is important to:

- diagnose the presence of retinal blood vessel disease early so that preventive changes may also be made early;
- clearly record baseline status to more easily pick up change later – without the baseline imaging, small changes are impossible to diagnose early and even large changes can often be very difficult to pick up for numerous reasons including: patients having small pupils, patients being unable to keep their eyes as still as needed to look inside their eyes properly with the biomicroscope and the simple fact that comparing with a previously acquired retinal image is much easier than comparing with a previous retinal status recorded on your eye exam chart with words only.

When we can diagnose BRVO risk early, we advise you and send a letter to your physician (who is your main coach for preventing progression of many of the causes of the problem) so that tightest possible control of your risk factors is made.

This will decrease the risk for a retinal hemorrhage such as this patient had and decrease the risk for hemorrhage happening elsewhere in your body. Such a hemorrhage in the brain is a type of stroke. The eyes are the only place in the body where the blood vessels can easily be seen in their natural state. There is abundant medical evidence that there is a high correlation between the health of the blood vessels in the retina, brain and heart. Therefore, when we are doing your eye exam, we are checking your eye health and associated body health. The most common important systemic diseases that correlate with retinal health involve blood vessels.

If you do the things you can to minimize progression of this increased BRVO risk, the chances of you seeing well in the future is good because most people don't know about this situation before the hemorrhage occurs. Preventive medicine pays off. If you have any questions, please call us.