

Online edition THE **TILLSONBURG NEWS**

careerad.com **CAREERAD**

Find a job.

August 27, 2007

- News
- Sports
- Columns
- Events
- Archives

- Obituaries
- Classifieds
- Career Ads
- Place An Ad
- Subscribe Online
- Advertising Info
- Contact Us
- Privacy Policy

- Featured Links**
- Bowes Publishers
 - Sun Media
 - Quebecor Media
 - Canadian Health Network
 - Health Canada Online



PHOTOS IN 2006



**The eyes have it, sort of
Various Veins**

Ross Andrews
Wednesday August 08, 2007

Our neighbour told us his father had a slight stroke from which he recovered except for one problem. He was left with a blind spot in his field of vision. He can be looking right at a person and not be aware of it unless he shifts his glance to one side or the other. Everyone has a blind spot in each eye where the optic nerve exits the eyeball on its way to the part of the brain that assembles nerve impulses into a picture of whatever is out there. We're not aware of these holes in our perception because each eye fills in the missing data for the other.

From some frightening moments in my life I'm pretty sure my nose blocks an area in the retina of one eye when I'm looking to the left or the right. This can hide something as large as a car hurtling toward me as I pull into an intersection. I make it a habit to turn my head far enough to get the schnoz out of the way.

Since the man who had the stroke has the blind spot even if he's looking straight ahead it is likely there's a damaged area in the brain itself.

An article in this month's Scientific American adds a whole lot of fascinating information about how we perceive the world. It's called Windows on the Mind by Susana Martinez-Conde and Stephen L. Macknik.

Our friend's dad has to keep his eyes moving to avoid running into people, but did you know we all have to keep our eyes on the move to keep a full picture in our heads?

There is a little chart to show that this works, though in truth I have no idea how it works. You fix on a little red dot in a white square. Around the dot about an inch and a half away runs a grey circle. As you look at the dot you become aware that the circle has disappeared. All you see is the white background.

The authors liken this to putting our shoes on. At first we feel the shoes pressing on our feet but in a few seconds that feeling goes away. You only get it back if the shoes begin to pinch or make a blister.

This is a good thing because it frees our brain to pay attention to more important matters, like a car hurtling toward you at an intersection.

Did you know frogs can't see an object unless it moves? As long as a fly sits still it's safe. If it washes its face or takes a step it's lunch. I noticed when I was clearing mud from the culvert that the beavers have been damming, frogs will come from quite a distance to see what's going on. I thought they were just nosey but it's probably this visual condition in action. Something's moving. Maybe it's edible.

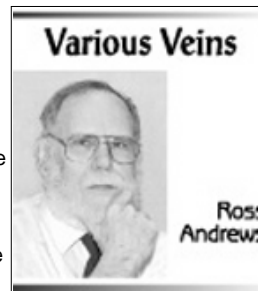
The authors say there are three eye movements that enable us to see a coherent picture. They are straight lines called microsaccades, drifts which are wavy lines, and tremors which are zigzags.

Have you ever woke up in a dark room and seen a light drifting across a wall or ceiling? When you get fully awake the spot may come to rest and you realize you're seeing a street lamp through a window. The light doesn't move, your eye does until you take charge.

Have you ever been jolted by the sensation your parked car is moving when the one beside you pulls away? How about that feeling your car is rolling into a lake as you watch waves rolling toward the beach?

Most of us are not watching other people's eyes closely enough to notice these tiny movements, but some technicians can get an idea what's happening in our heads by observing what our eyes are doing. Are we considering whether to eat that last piece of cake? Do we find that woman or man who just sat at the table across the aisle very attractive? A trained observer isn't fooled by our pretending to look elsewhere.

Martha and I eat at restaurants fairly often. I must be careful from now on when scantily-clad customers bend over to choose the salad for their orders. She may be watching my microsaccades.



CLASSIFIEDS
classifiedextra.ca
NEW!
20M of potential buyers!

I'm looking for
 GO

See the classified ads from all Quebecor newspapers



Click here
to subscribe or
renew your
subscription



Tillsonburg,
ON

23°C
feels: 23°C



Cybersaver Newspaper Advertising
Click The Image For Full Size Display