

  
Canadian Ophthalmological Society  
Société canadienne d'ophtalmologie  
EYE PHYSICIANS AND SURGEONS OF CANADA | MÉDECINS ET CHIRURGIENS OPHTHALMOLOGISTES DU CANADA



◀◀ **Your Eyes** and Diabetes ▶▶

**OPEN YOUR EYES  
TO AN EYE EXAM**

 Recognize your diabetes-related risks.  
**Book an appointment today.**



  
Canadian Ophthalmological Society  
Société canadienne d'ophtalmologie

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Canadian **Retina Society**  
Société canadienne de la **Rétine**

 CANADIAN ASSOCIATION OF OPTOMETRISTS  
ASSOCIATION CANADIENNE DES OPTOMÉTRISTES

 EYE PHYSICIANS  
AND SURGEONS  
OF ONTARIO

**DIABETES CANADA** | **DIABÈTE CANADA**



 The FOUNDATION  
FIGHTING BLINDNESS



## 1 How can diabetes affect my eyes?

- Diabetes can cause “Diabetic Retinopathy” (DR)
- DR is the most common diabetic eye disease affecting 500,000 Canadians<sup>1</sup>
- Having too much sugar in your blood can damage the blood vessels in the retina, leading to DR (see Figure 1)
- The retina is the tissue lining the back of the eye and works like the film in a camera that helps you see
- Changes to your eye with DR can reduce your vision (see Figure 2)
- For more information about DR, go to [www.eyecandoit.org](http://www.eyecandoit.org)

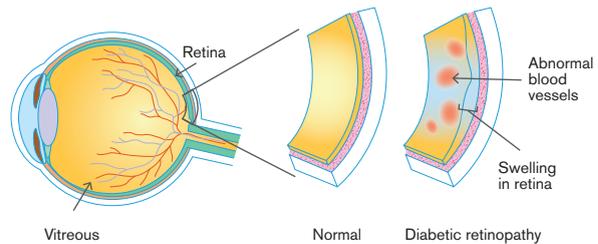


Figure 1. Diabetic retinopathy (DR).

Eye exams are part of managing your diabetes. Early detection and treatment of DR can reduce the risk of blindness by 95 percent.<sup>2</sup>



Figure 2. Vision with progressing DR. Used with permission from CNIB.<sup>3</sup>

## 2 Why should I get an eye exam?

- Diabetes can affect your eyes which can affect your vision over time
- Keeping blood sugar, blood pressure and cholesterol at target may prevent or decrease the risk of DR
- Regular eye exams are very important; sometimes, damage to eyes happens even before the diagnosis of diabetes
- Changes can be detected early by regular eye exams, even before you see any difference in your vision

- Getting regular eye exams is part of your complete diabetes management

## 3 How do I get an eye exam?

- A diabetic eye exam can be performed by an ophthalmologist or optometrist
- Contact your eye care professional directly for an appointment or have your health care provider refer you for an eye exam

## 4 What happens during an eye exam?

- Drops are put into your eyes to dilate your pupils (i.e., make them larger)
  - The drops may sting a bit
- Once your eyes are dilated, your eye care provider examines your eyes using a special magnifying lens that provides a clear view of the back of the eye
- Dilated eye exams are a safe and effective part of managing your diabetes
- It is a small commitment of time to help keep your eyesight!



A diabetic eye exam may be available at no cost to you.

## 5 Do I have to pay for an eye exam if I have diabetes?

- A diabetic eye exam may be covered by your provincial health plan and available at no cost to you\* – you will want to confirm in your province (e.g., the diabetic eye exam is covered in Ontario)

\* Your eye care provider may offer retinal photos as a permanent record of your exam results at an extra cost.

## 6 How often is an eye exam recommended?

- If your vision changes, you should go see your eye doctor immediately
- If your vision is doing well, you should get an eye exam **once a year**, unless otherwise directed by your ophthalmologist or optometrist
  - Remember, you may not be aware of changes occurring to your vision
  - DR can worsen in pregnancy so it is important to get a diabetic eye exam before getting pregnant and while pregnant



People with diabetes should get an eye exam once a year. This is a small investment of time to help keep your eyesight!



You may not be aware of changes occurring to your vision.

### 7 What if I don't have an ophthalmologist or optometrist?

- Your eyes can be checked for DR through a telemedicine screening program
- A technician takes a photograph of the back of your eye and sends it to an eye doctor to assess whether DR is present and/or whether additional follow-up is required

### 8 What happens if I have DR?

- Very effective treatments for DR are available and your eye care specialist will explain these to you

### 9 What can I do to reduce my risk of DR?

- For all patients with diabetes, follow the **ABCDEs**

- A** A1C – measures blood sugar control and should be 7% or less
- B** Blood pressure – optimal blood pressure control (less than 130/80 mmHg)
- C** Cholesterol – LDL-C 2.0 mmol/L or less
- D** Drugs to protect the heart (even if the baseline blood pressure or LDL-C is already at target)
- E** Exercise/Eating – Regular physical activity, healthy eating, maintaining a healthy body weight
- S** Smoking cessation<sup>4</sup>

### 10 Resources

- For more information about DR and diabetes, go to:
  - **Canadian Ophthalmological Society:** [www.cos-sco.ca](http://www.cos-sco.ca)
  - **Canadian Association of Optometrists:** [www.opto.ca/diabetes](http://www.opto.ca/diabetes)
  - **CNIB:** [www.cnib.ca](http://www.cnib.ca) (check out the vision loss simulator to see what the world would look like with DR!)
  - **Angiogenesis Foundation:** [www.eyecandoit.org](http://www.eyecandoit.org)
  - **Diabetes Canada:** [www.diabetes.ca](http://www.diabetes.ca)
  - **American Academy of Ophthalmology:** [www.geteyesmart.org](http://www.geteyesmart.org)
  - **American Academy of Optometry:** [www.aaopt.org](http://www.aaopt.org)

### References

1. CNIB. Your Guide to Diabetic Retinopathy. <http://www.cnib.ca/en/your-eyes/eye-conditions/eye-connect/DR/Pages/default.aspx>. Accessed Jun 3, 2017.
2. National Eye Institute. Facts About Diabetic Eye Disease. <https://www.nei.nih.gov/health/diabetic/retinopathy>. Accessed Jun 3, 2017.
3. CNIB. Eye Simulator. <http://www.cnib.ca/en/your-eyes/eye-conditions/eye-connect/Pages/EyeSimulator.aspx>. Accessed Jun 3, 2017.
4. Canadian Diabetes Association: Clinical Practice Guidelines. Quick Reference Guide. <http://guidelines.diabetes.ca/vascularprotection/ABCDEs>. Accessed Jun 3, 2017.

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