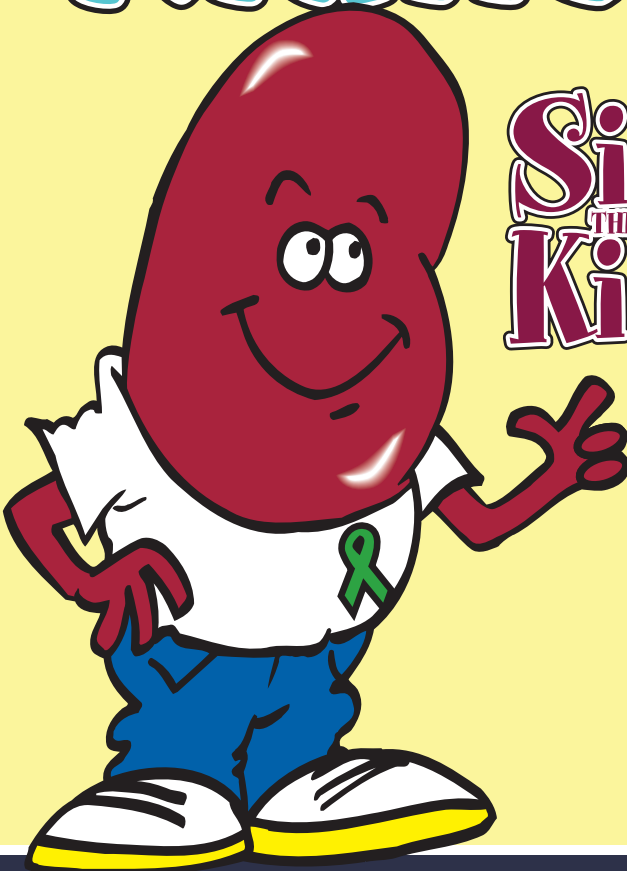
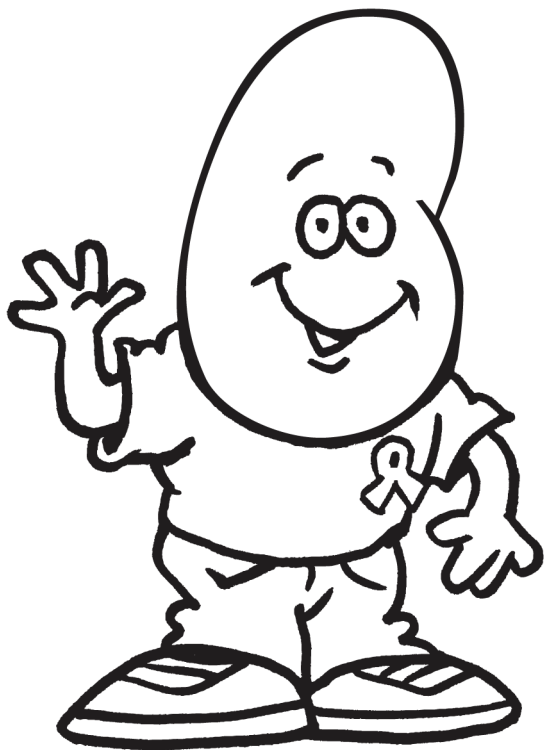


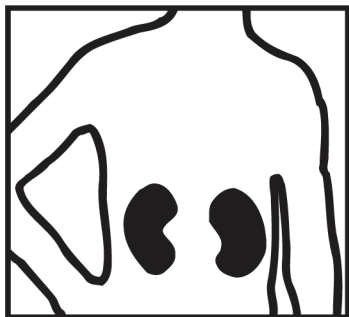
# You and Your Kidneys

WITH  
**Sidney**  
THE  
**Kidney**





Hey kids, I'm Sidney,  
and I'd like to  
introduce you to  
your kidneys.



View of your back.

Here they are - one on each side  
of your spine, protected by your  
lower ribs. They look like two  
kidney beans, only bigger. Each  
one is the size of your fist. Your  
kidneys are vital organs. You  
can't live without them.

My friends Kris and Kara have  
learned a lot about kidneys.

**vital** *adj.* essential for life.

# THE MATCH

Aw Mom, why do you always have to be on this machine?

I'd much rather be out watching both of you play soccer.

Not now, Kiki!

Or taking me for a run.

My kidneys failed because of my diabetes. They can't clean my blood any more.

So that's what the machine does?

Yes, dear, it's called a dialysis machine, and it filters the waste out of my blood. I need it to stay alive.

## ONE DAY DR. KHAN HAS GOOD NEWS

We did some tests. Your Uncle Kyle is a match for your mother. He's going to give her one of his kidneys! We'll do the transplant next week.

Does that mean Mom won't need dialysis any more?

Living donor transplants are usually successful. Its very likely your mother won't need dialysis after the transplant.

Everyone has two kidneys but you can live a healthy life with only one. We did tests to make sure your uncle will stay healthy even though he'll just have one kidney.

But how will Uncle Kyle's blood get filtered?

Wow!  
Amazing



## ONE YEAR LATER...

Enjoying the match, sis?

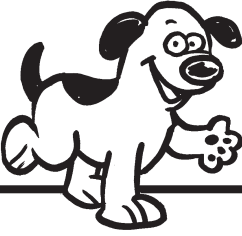
Wonderful, Kyle. Wonderful!

Hey! What about taking me for a run?

OK, OK, we'll go after the game.

Thanks, Uncle Kyle!





# KIKI'S KIDNEY QUIZ FOR KIDS

## True or False?

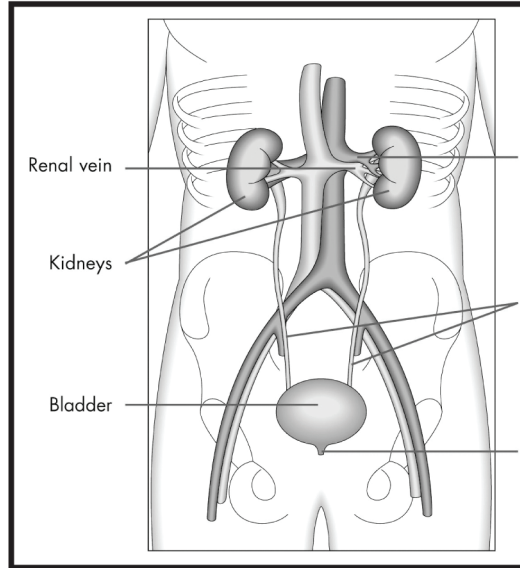
1. Your kidneys enable your eyes to adjust to darkness.  
T / F
2. Your kidneys help control several body functions.  
T / F
3. Your kidneys take wastes out of your blood and excrete them in your urine.  
T / F
4. Every day on average 15 Canadians learn their kidneys have failed.  
T / F
5. There is nothing you can do to keep your kidneys healthy.  
T / F
6. Your kidneys filter a litre of blood every minute.  
T / F
7. Prolonged loud, unpleasant noises can damage the kidneys.  
T / F
8. If both kidneys fail, you need dialysis or a transplant to live.  
T / F

# YOUR KIDNEYS KEEP YOU

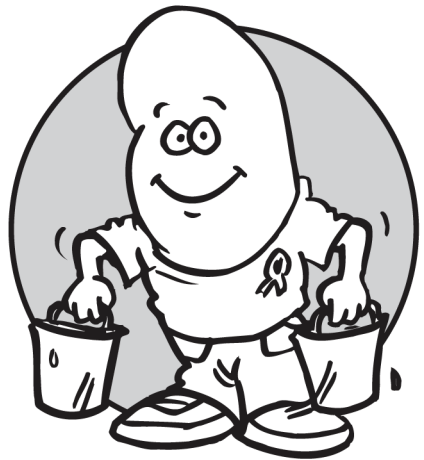
## The Inside Story

### The Urinary System

Blood enters the kidneys through the renal arteries. After it is cleaned, the blood flows back toward the heart through the renal veins. The kidneys take water and wastes from the blood to form urine. The urine goes from the renal pelvis through the ureter into the bladder, where it is stored. It passes out of the body through the urethra when you urinate.



The kidneys get rid of what your body can't use, and recycle what it can use. They keep every substance at the right level: water, sodium, potassium, calcium, and more.



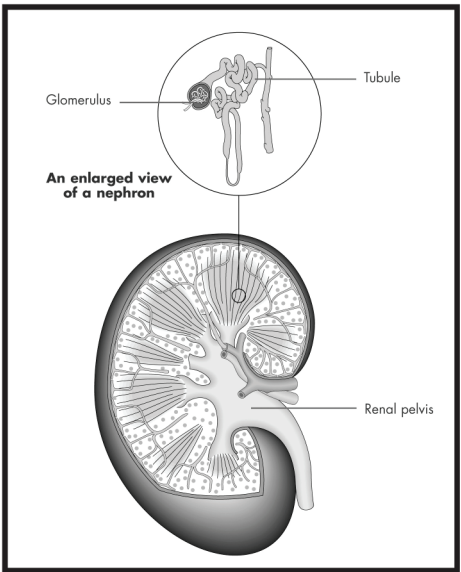
# OUR BODY IN BALANCE

## The Body's Filtration and Recycling Plant

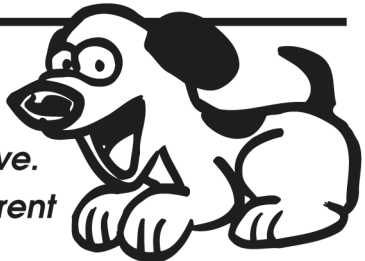
Renal artery

Ureters

Urethra



Each kidney is made up of more than a million tiny nephrons. Each nephron has a microscopic filter called a glomerulus, which takes water and waste out of the blood. The water and waste then pass through tiny tubules which remove the water and form urine which is carried to the renal pelvis.



Look closely at The Inside Story above.  
Write down the letters that look different to find Kiki's definition of kidneys.

□	□	□	□	□	□	□	□	□	□
---	---	---	---	---	---	---	---	---	---

- artery** *n.* (*pl. arteries*) a vessel that carries blood from the heart to other parts of the body.
- nephron** *n.* part of the kidney that keeps the body's chemicals in balance.
- glomerulus** *n.* (*pl. glomeruli*) a tiny part of each nephron which filters and separates wastes.
- renal** *adj.* relating to the kidneys.
- ureter** *n.* a tube that carries urine from the kidney to the bladder.
- urethra** *n.* the duct that takes urine from the bladder out of the body.

# KEEP YOUR KIDNEYS HEALTHY

How do you know if something's wrong with your kidneys?

If your urine is pink or red or looks brown like cola, or if you have trouble with your urination, see a doctor right away.

People often don't realize they have kidney disease until it's serious. They might feel unwell all the time with no real symptoms.

Yeah, that's what happened with Mom. She seemed OK, sort of. Then we found out her kidneys were failing.

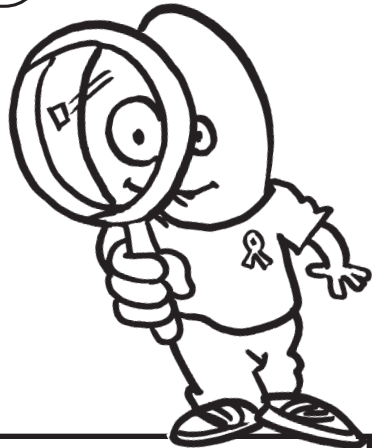
**What can you do to keep your kidneys healthy?**  
**Break the code to find out.**

IBWF B IFBMUIZ EJFU.

HFU MPUT PG FYFSDJTF.

ESJOL FOPVHI XBUFS.

*Use the code to make your own message about what foods you should eat — or avoid.*

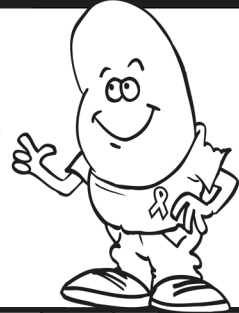


Your doctor needs both a urine sample and a blood sample to find out how healthy your kidneys are.



# FILTER OUT THE KIDNEY WORDS

Find at least  
12 kidney-related words.  
Be sure to look for words that are  
backwards, upside down and  
diagonal. Write them on a  
separate piece of paper.



K	N	E	P	H	R	O	N	I	H	T
R	I	P	X	B	L	A	D	D	E	R
E	N	D	O	E	Y	E	M	S	A	A
T	A	L	N	O	T	A	I	L	L	N
E	G	I	D	E	X	S	E	I	T	S
R	R	R	U	O	Y	K	A	J	H	P
U	O	F	I	L	T	E	R	W	Y	L
P	K	L	A	N	E	R	Y	Z	A	A
E	V	I	T	A	L	E	B	E	A	N
E	D	O	O	L	B	W	E	K	U	T

## THEN RECYCLE THEM

Use as many of the hidden words as you can  
to write a paragraph about kidneys.

# Answers to Kiki's Kidney Quiz (page 3)

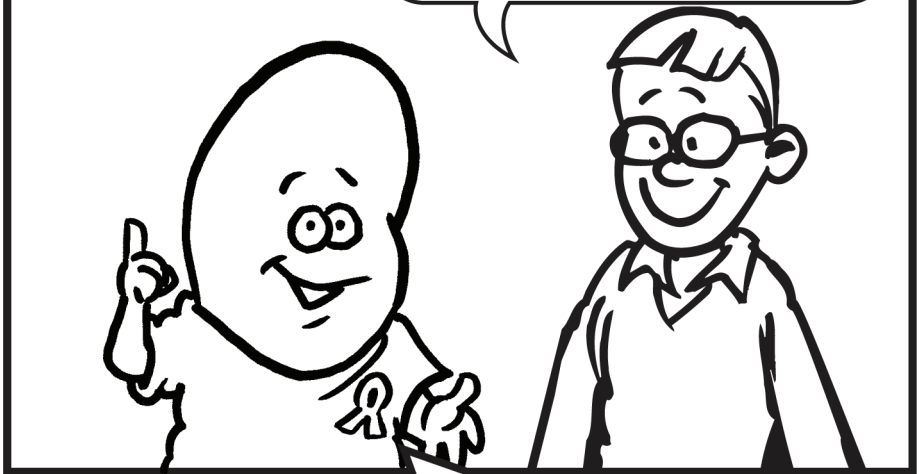
- 1. False.** The iris (the coloured circle around the pupil) enables the eye to adjust to light.
- 2. True.** The kidneys regulate the amount of water in your body, remove wastes and balance your body's minerals. They also produce hormones that control blood pressure, the making of red blood cells, and other functions.
- 3. True.** The kidneys remove excess water and substances your body cannot use from your blood, and turn them into urine.
- 4. True.** Every day, an average of 15 Canadians learn that their kidneys have failed and that their survival depends on dialysis or a kidney transplant.
- 5. False.** A good diet and regular exercise help maintain kidney health.
- 6. True.** Every day, the kidneys filter all your blood 400 times!
- 7. False.** Diabetes or high blood pressure can harm your kidneys. Loud noise can hurt your eardrums.
- 8. True.** Your kidneys are vital organs. Something has to do their work in order for you to live.



p. 5: human beans  
p. 6: Have a healthy diet. Get lots of exercise. Drink enough water.  
(Use the previous letter in the alphabet: e.g. B=A, Z=Y.)  
p. 7: bean, bladder, blood, dialysis, filter, healthy, kidney, nephron, organ, renal, transplant, ureter, urine, vital, waste.

Kidneys and other vital organs can be donated.

Thirty-one per cent of kidney transplants come from live donors like me. The rest come from people who died, who made sure their family knew they wanted to donate their organs.



Green ribbon stands for organ donation.

NOTES:

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Name \_\_\_\_\_

Class \_\_\_\_\_



**kidney.ca**  
**1 800 387 4474**  
**ontario@kidney.ca**

*Disponible en français*