

# The Body's Balancing Act

*By Josephine Ann A. Aparte*

**Y**ou often spin and tumble on a wet floor while some of your friends who step on the same floor have no trouble avoiding slipping.

Why does this happen to you? Does this mean you're clumsier than your friends?

Scientists at the Human Movement and Balance Laboratory at the University of Pittsburgh in the United States conducted research to find out exactly why some people are more likely to fall over than others are. They also wanted to know how balance is developed.

## Balance organs

Balancing depends on the ears, eyes, and brain. Our ears help us keep our balance. There are two organs of balance in the inner ear, specifically,



*Being able to balance the body depends on the ears, eyes, and brain.*

in the bony labyrinth. The first organ of balance detects the position of the head. The second organ of balance detects the rotational movements of the head.

Aside from the two sensory organs in our inner ear, we also rely on our eyes to keep our balance. Our eyes also deliver

important information about our body's position. The eyes tell our brain to work out exactly what the body is doing in relation to the outside world.

Our brain is the boss in this balancing act—it oversees our sense of balance. It gets input from the eyes and inner ears and from sensations in the feet and legs. We feel dizzy or unbalanced if something goes wrong with any part of the process.

### Did You Know?


There are only two kinds of animal that spend their whole lives performing the tricky balancing act of walking on two legs—humans and some flightless birds, like ostriches.

## Health and age matter

Let's say you're standing beside your classmate whom you know is sickly. Then suddenly, someone pushes both of you from behind. Who do you think can keep himself stable and is not likely to topple over?

The University of Pittsburgh scientists say that if you're a healthy kid, you're most likely to easily recover from being pushed than your sickly classmate.

And what about clumsiness? Does this have something to do with balance? The scientists say that some children are clumsy because they are slow to develop their balancing skills. This is a disorder that may cause problems when these kids grow up.

Now you know that health matters when it comes to balancing the body. So if you want to always keep your balance even on slippery floors, stay healthy. 

### Sources

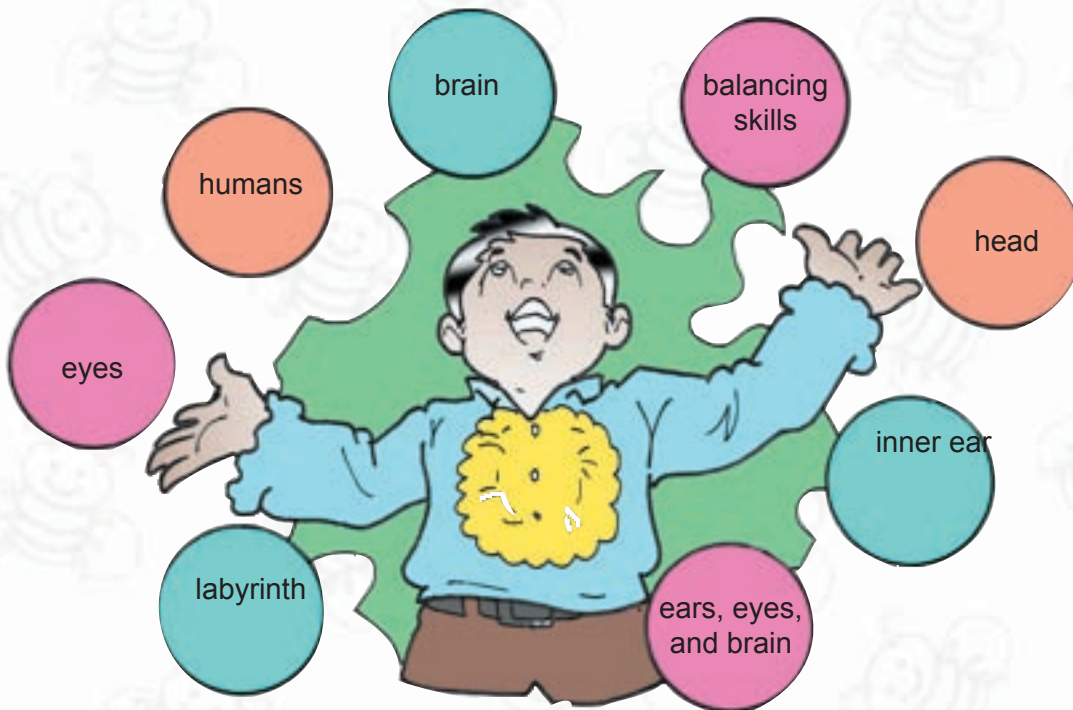
*Taking a Spill for Science.* [www.sciencenewsforkids.org/articles/20060308/Feature1.asp](http://www.sciencenewsforkids.org/articles/20060308/Feature1.asp)

*Nervous system – Balance.* [www.bbc.co.uk/science/humanbody/body/factfiles/balance/balance\\_animation.shtml](http://www.bbc.co.uk/science/humanbody/body/factfiles/balance/balance_animation.shtml)

[www.bbc.co.uk/science/humanbody/tv/humansenses/programme6.shtml](http://www.bbc.co.uk/science/humanbody/tv/humansenses/programme6.shtml)

# TEST YOUR MEMORY

How's your memory? Can you still remember important facts from what you just read? Answer the exercise below. Complete the sentence by choosing the answer from the word or phrase written on each ball the boy in the picture below is juggling.



1. There are two organs of balance in the inner ear, specifically in the bony \_\_\_\_\_.
2. The first organ of balance detects the position of the \_\_\_\_\_.
3. Our \_\_\_\_\_ also deliver important information about our body's position
4. \_\_\_\_\_ oversees our sense of balance.
5. Some children are clumsy because they are slow to develop their \_\_\_\_\_.
6. Balancing depends on the \_\_\_\_\_.
7. \_\_\_\_\_ and some flightless birds are the only animals that spend their whole lives performing the tricky balancing act of walking on two legs.
8. There are two organs of balance in the \_\_\_\_\_.

# FIND THE WORDS

Find in the grid below the words mentioned in the story. Use the clues.

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

balancing  
brain  
clumsiness  
dizzy  
ear

inner  
labyrinth  
ostrich  
sensory  
systems

*Answers to Activity*

*Test Your Memory*

1. labyrinth
2. head
3. eyes
4. Brain
5. balancing skills
6. ears, eyes, and brain
7. Humans
8. inner ear

*Find the Words*

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