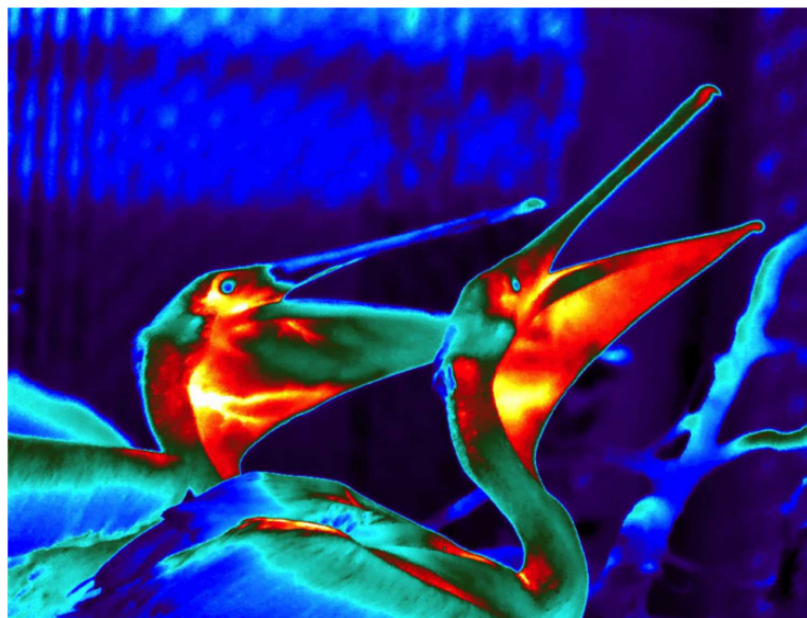




MOVEMENT AND REACTION: THE HUMAN BODY

How does the circulatory system keep our body cool and comfortable? On the right is an image of two pelicans. Taken using thermal imaging, the image is part of the Bruce Museum's Under the Skin science exhibition, which shows how researchers are able to explore what's going on under the surface, whether it's about a bird, reptile, or even ancient fossil. The bright red and yellow areas represent the hottest parts of the pelicans, while the darker blues and greens are cooler. Notice the exceptionally bright reds and yellows in the pelicans' throat pouch; pelicans have a dense network of veins and capillaries in their throats that they use to cool off. When a pelican is too hot it flutters its neck pouch, called a gular pouch. Gular fluttering allows cool air to circulate around, and into, the pouch, which cools down blood that is close to the surface.



Pelicans, thermal image. Image courtesy Dr. L. Witmer, Dr. R. Porter, and Dr. G. Tattersall

Try It at home!

When we exercise our circulatory system gets a workout, too, so let's try it! First, ask a grownup if it's OK for you to make some space to work up a sweat. Before you start working out, check your pulse. You can check your pulse at any joint in your body, but the most common places are the throat and the wrist. Use your two first fingers, after your thumb, and press them gently into the side of your throat or the inside of your wrist. You should feel your pulse gently thumping away. Count your pulse for 60 seconds, using a timer or a clock.



**Now it's
time to
build up a
sweat!**

Doing this series of exercises twice should do the trick, or make up your own!

- 25 Jumping Jacks
- Sit down on the floor, stand up and jump 25 times
- Lie on your back, sit up and touch your toes 25 times

Check your pulse again, is it faster, slower or the same? You might notice that your skin is flushed and warm. That means your body is pushing hot blood closer to the surface of your skin to cool down. You might be sweating a little. This is your body's number one way of cooling down. Lastly, you might find yourself craving a cold glass of water. Treat yourself to that beverage -- you've earned it!