

## **Pronghorn antelope**

Pronghorn Antelope is North American fastest mammal; from a stand still it can explosively accelerate to a speed of 60 mph and then cruise at 45 mph for many miles. This dual design of speed and endurance is unusual in the mammal kingdom. For example, cheetahs are great sprinters but only for a quarter of a mile and then they are exhausted. Or think about the Olympic runner, those that run the 100 or 200 meter dash, these athletes are usually heavily muscled in their torsos and thighs. The long distances runners- 400, 800 meters....- however, are longer limbed and scrawnier. Notice the body types for sprinters and distant runners, there is an optimal body type. Notice the pronghorn it is both a speedster and distance runner fit in one body.

With this much running...muscles heat up. Antelope run hard for long distances causing heat to build up which can be dangerous to the brain. So how does a pronghorn antelope not overheat its brain? A Pronghorn is able to keep cool because it possesses two heat exchangers in its head. As the muscles create heat, the heated hot blood moves its way through the major artery to the brain. Suddenly, the major artery branches out into smaller channels forming a network. Meanwhile, the cool venous blood, which has picked up its coolness from the ears and nose, forms a network around and near the arterial network. Now the venous blood picks up the hotness and cools the arterial network. The newly cooled blood is sent to the brain and an antelope is able to keep a cool head in the heat of the run. Did these heat exchangers happen by accident and chance? How many antelopes died from boiling their brains out before evolution accidentally evolved these heat exchangers? When you see a heat exchanger you know there must be a heat exchanger maker and that heat exchanger maker is God. From the very beginning God created the pronghorn antelope to run and to run fast and long. He needed to protect them from overheating and so created and placed within them this heat exchanger.

*(Built for Speed: A year in the life of pronghorn, John A. Byers, 2003, p. 4-5, 14-15.)*