The brown fat cells specialized in the production of heat, burns fats and sugars.

The brown fat cells, specialized in the production of heat, burns energy (calories) coming from other stored fat³.
Until recently, it was considered that; to keep their body heat, the human being shivers while animals hibernate and use their brown fat as source of heat. The present study showed that brown fat also produced heat for the human being without stimulating shivering, in a consoled intense cold.
Recent studies had shown the presence of brown fat in the area of the neck in the adults. This fat is also present in the back of new-born until the one year age.

The researchers André Carpentier of the University Of Sherbrooke and Denis Richard Of Laval University, with their team, measured energy consumption, of glucose and blood fats by brown grease at six men during a controlled cold exposure, limiting shivering to the maximum.

The participants presented an increase in their consumption of glucose and blood fats. The more the activity of brown grease increased, the less they were carried to shiver. The radiological observations of the composition of brown grease also show a consumption of grease already stored within this tissue.
Brown fat thus acts like a source of heating consumption additional during the cold exposure. This energy expense can contribute to make weight lost.

What's the difference between white fat cells & brown fat cells??

White fat is found in adults, and brown fat is found in infants. (This theory is obsolete now, in the April publication of the New England Journal of Medicine, not one, but THREE independent labs proved the existence of brown fat in adults)

Differences between brown fat and white fat are:
  a) Brown fat deposits around vital internal organs and along back and sternum. While white fat is found under skin.
  b) Brown fat cells have mitochondria, hence it is metabolically active. While white fat is not.
  c) Brown fat can generate ATP hence it can generate heat. White fat can’t.

*note white fat cannot generate heat but it does insulate the body which helps to keep the body temperature at a steady level

---

¹ Canadian study published in the Journal of Clinical Investigation.

ii April publication of the New England Journal of Medicine