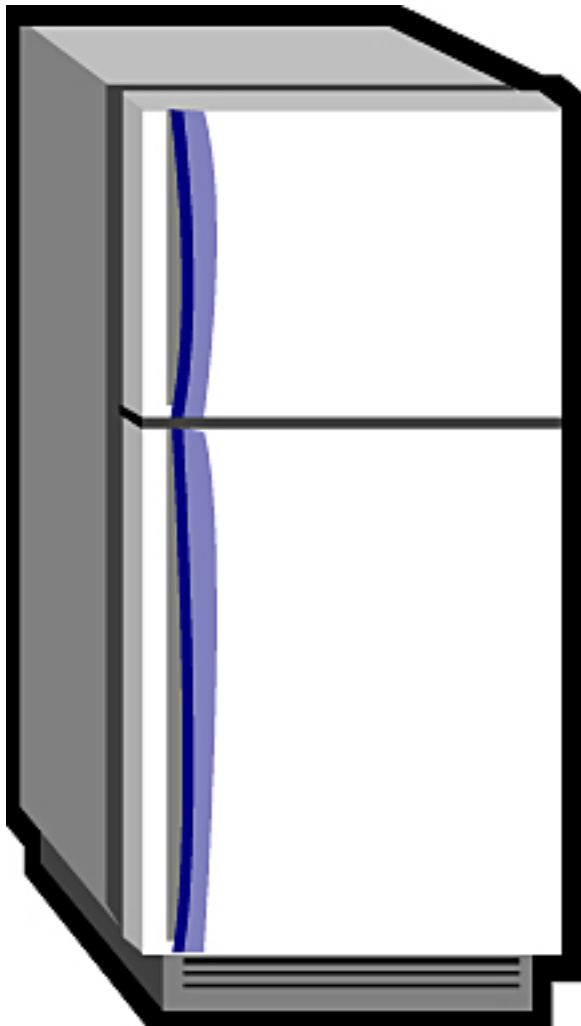


## Shopper's Guide to Refrigerators



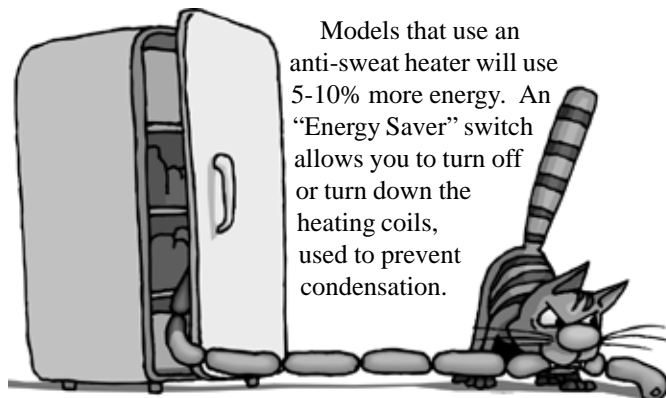
The refrigerator is the third largest energy user. Only space heating and water heating take more energy. The refrigerator can account for as much as 15-20% of your home's total energy usage. If your refrigerator is more than 15 years old, you'll save on your electric bills if you replace it with a more efficient unit.

Though a highly efficient model can cost more than the more inefficient model, it may be a better buy in the long run given how it will probably save you substantially over the 18 years an average refrigerator lives.

### Refrigerators & energy use

Most of the energy used by a refrigerator is used to pump heat out of the cabinet. A small amount is used to keep the cabinet from sweating, to defrost it, and to light the interior. The new energy efficient refrigerators have better insulation and seals, more efficient compressors, and more precise controls.

Refrigerators run approximately a third of the time and cycle on and off at a rate that depends on cabinet insulation, the room temperature, maintenance, and how energy-wise you are in operating your refrigerator.



Models that use an anti-sweat heater will use 5-10% more energy. An "Energy Saver" switch allows you to turn off or turn down the heating coils, used to prevent condensation.

### The EnergyGuide and Energy Star labels

Refrigerators made to meet the new 2001 energy efficiency standard will cut energy costs by 30% over those made since 1993.

Use the EnergyGuide label to find comparable models that are least expensive to operate. The Energy Star designates those refrigerators that will save another 25 – 36% on energy — a significant saving over the life of your fridge.

### Before you shop -- How big?

Measure your area. Reserve two inches of space around the cabinet, as proper air movement improves energy efficiency. Two-people need an inside capacity of 8-10 cubic feet for fresh food. Add one cubic foot for each additional person. The interior area is about 25% less than the name plate dimensions. 16-20 cubic foot models are the most energy efficient. If one configuration allows you to purchase a smaller unit, you'll come out ahead.

### Standard configurations

Two-door, top-freezer models give you the most refrigerator for the money and are 7-13% more energy efficient than side-by-side models.

Side-by-side models offer advantages for people who want doors that are easier to manage, more food at eye level and a shorter reach. Side-by-sides are usually larger, though some items may not fit. There's more freezer space, too. Bottom-freezer models, built-in models, and models with a "built-in look" are also available.

## *The defrost method and energy efficiency*

Refrigerators are either manually defrosted, partially automatically defrosted whereby the freezer requires manual defrosting, or are automatically defrosted. Automatically defrosted models require about twice the electricity of manual-defrost models, but the energy savings is lost if ice builds up by more than ¼ inch. If you're not into defrosting, choose a model with automatic defrost.

## *Ice cube trays, or ice maker and water dispenser?*

An ice maker and through-the-door dispenser will increase your refrigerator's energy use by 14-20% and will increase your initial cost by \$75 - \$250. Consumer Reports finds that in the first five years, almost 30% of side-by-side models with an ice maker and water dispenser needed a repair, and almost 20% of top-freezer models with ice makers needed a repair. 10% of top-freezer models without ice makers needed a repair in their first five years.

## *The door & dollar bill tests*

Look for heavy door hinges that create a good door seal. Ah, the sound of a solid, tight door!

Heat leaks into your refrigerator through the seals. Test them by closing the doors on a dollar bill. The seal should be tight, so that the dollar bill is hard to pull out. Test in several places around the doors. New seals are not inexpensive, so you may be shopping if your seals are bad.

## *Other nice features*

New features include individual compartment temperature and moisture control, and large bottle storage in the door. Check out flexibility – split shelves, shelf-snuggers to secure bottles and jars, and the ease of adjusting shelves. And about cleaning – are spills contained, can shelves slide out, is the fridge on castors? You'll have lots of options for appearance, too.

## *So out with the old... or maybe not*

Only discard your old refrigerator or freezer at the landfill. Trained personnel make sure proper disposal protects our environment from CFC's.

If you are keeping the old fridge, turn it off when it's not in use. If you are disposing of it later, make it child-proof. Remove the door, turn it to face a wall, or chain it closed.

## *Energy efficiency tips*

### **Location**

- Move the refrigerator if it is located near the stove or dishwasher, or in sunlight.
- Refrigerators and freezers should be in space that is at least 60 degrees F.
- Leave at least a couple inches for air to circulate. Check your owner's manual since proper breathing space depends on the location of the coils and compressor.

### **Care and Cleaning**

- Vacuum or brush off the condenser coils once a year. Unplug it first!
- Clean the door seals. Use the dollar bill test to make sure there are no leaks.
- Regularly defrost refrigerators that have more than a ¼ inch of ice in the freezer.

### **Internal Adjustments**

- Maintain internal temperatures between 36 and 38 degrees F. for the refrigerator compartment and between 0 and 5 degrees F. for the freezer compartment. Use thermometers in each compartment.
- Turn off the butter conditioner.
- Many automatic defrost fridges have small heaters built into the walls to prevent moisture from collecting on the walls when humidity is high. Some models have a switch ("Energy Saver") that allows you to turn the heaters off. Try using this switch.

### **Routine Use**

- Cover liquids and wrap foods you are storing. Don't use paper wrapping.
- Let foods cool before putting in the fridge.
- Defrost food in the fridge instead of the microwave to help cool your fridge.
- Open the fridge as infrequently and briefly as possible. Make sure the door really closes.
- If the fridge is almost empty, put in a few bottles of water to help store the cold.
- Conversely, avoid overloading your fridge. Internal air circulation is important.
- Turn off your spare fridge when you aren't using it. Store it with child safety in mind.

