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## The Lifespan of House Components

During our inspections, we will often mark systems or components as “nearing or exceeding serviceable life.” What exactly does this mean for you and your home-buying decision?

### It’s all Statistics

In short, it means that you should budget for the replacement of that component. It doesn’t mean it’s going to fail immediately; it just means that, statistically, it has neared the end of its designed lifespan and could fail, sooner or later.

Most components in a house have an expected lifetime of 17-30 years, depending on the component, its installation, the use of the component, and the grade of the component.

Useful life is a combination of how it is used, cared for, maintained and what grade it was in the first place. A high-quality component that is used constantly and not maintained may reach its “end-of-useful life” sooner than a cheaper well maintained component that is used infrequently.

For example, a standard grade roof has a “warrantied” life of 20 years. A better “Architectural Grade” roof has an expected useful life of 30+ years. However, as the car commercials say, your mileage will vary. Steep roofs last longer than shallow-angle roofs. Roofs under trees that shed lots of leaves don’t last as long as roofs that aren’t subjected to leaf litter. The north sides of roofs wear out faster than south sides. In our area we expect about 85% useful life, so a 20 year roof typically only lasts about 17 years. After 17 years you are living on borrowed time and a leak could happen at any time.

Appliances are about the same. A water heater may be expected to last 15 years, but if it is always running, it will burn out sooner. We have seen 35 year old dishwashers in pristine shape, and 5 year old ones that are about ready to fall apart. It all comes down to maintenance and use.

A clean furnace can last 17 years, while one that is not maintained may need major repairs in under 10 years, and the dirt can harbor all sorts of things such as allergens, mold, and mildew in the ducts where we cannot see it.

If a component is running, we can’t call for its repair or replacement; we can only call for service if it should have routine service and there is no sign of it (typically furnaces, air conditioners or heat pumps). We look for a service tag, which usually has the date of the service along with the name of the person who performed it. If we see obvious lack of maintenance (no service tag; extensive rust or corrosion; filthy filters), we are limited to saying that the component has done its job as expected and could fail (without warning) at any time in the future.

### Even if it works, you still might want to replace it

Note that even though some appliances can last much longer, you may still want to replace them. Some old refrigerators will run forever, but they can use as much as five times the electricity of a newer model. Keeping a case of beer in the old fridge in the basement is very costly in electricity (\$250 a year more).

***Anticipated Appliance Expected life***

Microwave oven .....	8-10
Garbage disposal .....	10-12
Trash compactor .....	10
Water heater, gas .....	10-13
Water heater, electric .....	10-14
Water heater, tankless (on demand) .....	20+
Smoke detector .....	10
Refrigerator, side by side .....	14
Refrigerator, top mount .....	14
Refrigerator, bottom mount .....	17
Refrigerator, single door .....	19
Refrigerator, compact (dorm type) .....	5
Gas Range.....	15
Electric Range.....	13
Garage Door Openers .....	10-15
Washing machine, top load .....	14
Washing machine, front load .....	11
Dryer .....	13
Dishwasher .....	9-10
Cooktops .....	13-20
Air Conditioner (window unit) .....	10
Furnace (electric).....	13
Furnace (gas) .....	15
Heat Pump .....	16
Sump Pump .....	5-12

*Primary source is NAHB's report "Study of Life Expectancy of Home Components" combined with a number of other articles returned by Google. All of the articles say something to the effect of "your mileage may vary"*