

MERCURY ALTERNATIVES

Disclaimer: Prices below may vary depending on the manufacturer/retailer.
Temperature and pressure ranges are approximate.

To convert Fahrenheit into Celsius, visit <http://www.palmademallorca.com/contemp.htm>

Traditional Mercury Thermometers:

Thermometer	Uses	Temperature Ranges	Accuracy	Price
Mercury in glass	various	96.4 – 106°F	± 0.2 – 0.4°F	\$9+

Non-mercury Thermometers for Hospital Use:

Thermometers	Uses	Temperature Ranges	Accuracy	Price
Digital	Oral, rectal, axillary	96.4 – 106°F	± 0.2 – 0.5°F	\$30-60.
Alcohol-filled (liquid-in-glass thermometers)	Oral, rectal, axillary	Below 572°F (to ensure accuracy)	± 0.2 – 0.3°F	\$3+
Galinstan-filled (liquid-in-glass thermometers)	Oral, rectal, axillary	96.4 – 108°F	± 0.2 – 0.3°F	\$3+
Tympanic membrane	Ear (can be converted to oral & rectal reading)	77 – 110°F	± 0.2 – 0.5°F	\$60-160.
Dot Matrix Strip (NexTemp or TraxIt)	Strip insertion in oral, rectal, or axillary tissue	96 – 104.8°F	± 0.2°F (in 98-102°F range)	\$3+

Non-mercury Sphygmomanometers:

Type	Description	Pressure Ranges	Accuracy	Price
Aneroid	No liquid; spring mechanism measures pressure in cuff	0 – 300 mmHg	+/-3mmHg	\$22-150.
Electronic	Adult Systolic	70 – 250 mmHg	1-5 mmHg	\$22-150.
	Adult Diastolic	40 – 200 mmHg	“	“
	Neonatal Systolic	30 – 70 mmHg	1 mmHg	n/a
	Neonatal Diastolic	20 – 50 mmHg	“	“

Non-mercury Thermometers for Laboratory Use:

Thermometers	Uses	Temperature Ranges	Accuracy	Price
Alcohol-filled	General	Below 572°F	± 0.2 – 0.3°F	\$3+
Spirit-filled	Freezer (enclosed)	-22 – 32°F	±1°F	\$42.
	Blood bank	23 – 68°F	±1°F	\$23.
	Incubator	32 – 212°F	±1-2°F	\$30-40.
	Refrigerator (enclosed)	23 – 59°F	±1°F	\$42.
	Oven	32 – 392°F	±1-2°F	\$32-38.
Infrared	Digital read-out using a laser	0 – 500°F	±3°F	\$160+
Bimetallic	Meat/food or soil/asphalt testing	-150 – 1000°F	within 1%	\$25+
Thermocouplers	Digital read-out immersion probe (for gels/liquids)	-320.8 – 1994°F	n/a	\$85+

Manufacturers/References:

Non-mercury Thermometers/Sphygmomanometers for Hospital Use	
Alaris Medical Systems	www.alarismed.com
Becton Dickenson	www.bd.com
Welch-Allyn	www.welchallyn.com
News & Analysis @ nurses.com	www.nurses.com
Sustainable Hospitals	www.uml.edu/centers/lcsp/hospitals/
Medical Indicators	www.nurses.com/storefronts/medicalindicators.html
Geratherm	www.1thermometer.com/index.html
Thriveonline	www.thriveonline.com/health/Library/medtests/medtests474.html

Non-mercury Thermometers for Laboratory Use	
Cole-Parmer	www.coleparmer.com
ERTCO	www.ertco.com
Fisher Scientific	www.fisherscientific.com
Marshal Instruments, Inc.	www.marshalinstruments.com
Rapid-Tech Equipment	www.rapid-tech.com
News & Analysis @ nurses.com	www.nurses.com

Non-mercury Sphygmomanometers:	
University of Maryland Center for Environmental Science Horn Point Laboratory	
BP-Pump NIBPM Tester	www.ultramedic.com/products/