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Prediction:

Red blood cells placed in a hypertonic solution will shrink because osmosis will draw water out of the cells, causing their volume to decrease.

Strategy:

I will place red blood cells into solutions with different tonicities, and I will examine the appearance of the cells under a microscope to see if the cells change.

Conclusion:

In the blood and 10% NaCl solution, what happened to the cells to cause them to shrink?

Due to the hypertonic solution, water left the cells.

In the blood and 0.9% NaCl solution, what happened to the cells since there seems to be no change?

Since the solution is isotonic, there was no net movement of water.

In the blood and distilled water solution, why did blood become clear?

Because distilled water is hypotonic, the cells burst and no longer block light passing through the fluid.

What has happened to the cells placed into various solutions?

The cells exchanged water with the solutions based on tonicity because the cells have selectively permeable membranes.

Collected Lab Data

	10% NaCl	0.9% NaCl	Distilled Water
Transparency	Cloudy	Cloudy	Clear
Cell Appearance	Crenated	Normal	Burst
Tonicity	Hypertonic	Isotonic	Hypotonic

	10% NaCl	0.9% NaCl	Distilled Water
Image			