
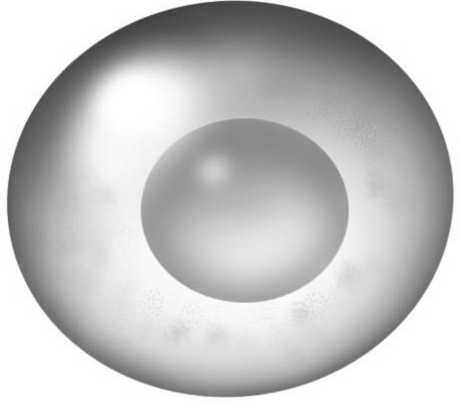


Comparing Sperm Cells and Egg Cells Answer Key

Criterion for comparison	Sperm cell	Egg cell
		
size	The head is about 5 μm long. The middle piece is about 5 μm long. The flagellum is about 40 μm long.	An egg cell is about 100 μm in diameter.
energy reserves	Before ejaculation, the mitochondria process fat to provide energy. After ejaculation, the mitochondria process fructose (a sugar) in seminal fluid to provide energy. Inside a woman's body, sperm can live for three to five days.	An egg can only live for about one day if it is not fertilized. If it is fertilized, it will implant in the endometrium, which serves as an energy source.
mitochondria	The middle piece of a sperm cell contains about 50 to 100 mitochondria, which supply ATP to provide energy for movement.	The cytoplasm of an egg cell contains about 140 000 mitochondria.
numbers produced	Sperm are continuously produced. About 300 to 500 million sperm are produced each day in a male's lifetime.	At puberty, each ovary contains 300 000 to 400 000 egg-forming structures (follicles). Usually, one egg is released from one of the ovaries each month.
motility	Sperm are motile. A sperm cell has an undulating tail (flagellum) that enables it to swim in fluid media.	Eggs are not motile. They have no structures to propel themselves.
outer structures	The sperm head has a cap called an acrosome, which contains enzymes that help the sperm enter an egg.	An egg is covered by a specialized outer coating which, in most cases, can only be penetrated by sperm of the same species.