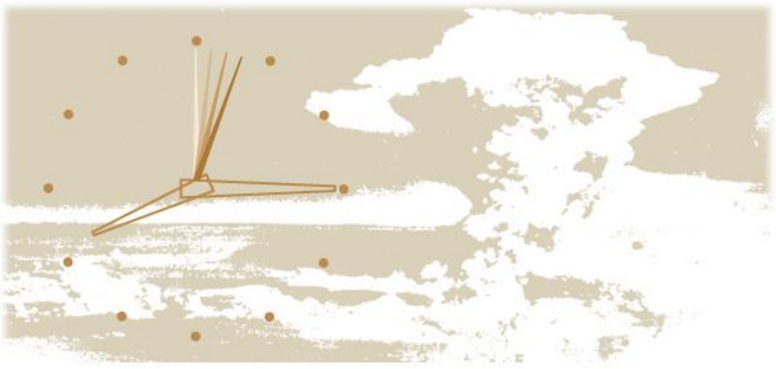
In the first 3 seconds after an atomic bomb explodes

*Based on data depicting the phenomena that occurred immediately after the atomic bomb exploded over Hiroshima at 8:15a.m. on August 6, 1945.

0 seconds	The atomic bomb is detonated at an altitude of 600 meters in the sky.
1/1,000,000 of a second	Nuclear fission is completed and radiation is emitted. Inside the bomb, the temperature exceeds one million degrees Celsius and the atmospheric pressure expands to hundreds of thousands of units, producing the explosion.
1/10,000 of a second	The explosion creates a fireball with a radius of approximately 14 meters and a temperature of some 300,000 degrees Celsius.
1.5/100 of a second	The radius of the fireball grows to 90 meters. Its surface temperature drops to 1,700 degrees Celsius, then increases again.
0.3 of a second	The surface temperature of the fireball rises to 7,000 degrees Celsius.
1 second	The radius of the fireball reaches its maximum of approximately 140 meters while the surface temperature falls to 5,000 degrees Celsius.
3 seconds	The fireball is exhausted of nearly all its energy.



Approximately 10 seconds	The city is razed and a conflagration breaks out.
3 minutes	The mushroom cloud is visible.
20 minutes	Black rain, containing radioactive elements and ash from the conflagration, starts to fall.

Estimated casualties if the city of Hiroshima was attacked by a nuclear weapon

Type of nuclear weapon (explosive force/location of explosion)	Number of deaths	Number of injuries
Hydrogen bomb (1 megaton/altitude of 2400 meters)	**372,000 people**	**460,000 people**
Atomic bomb (16 kilotons/altitude of 600 meters)	**66,000 people**	**205,000 people**
Atomic bomb (16 kilotons/on the ground)	**over 55,000 people**	**over 146,000 people**
Atomic bomb (1 kiloton/on the ground)	**over 10,000 people**	**over 50,000 people**

*In a ground explosion, the number of casualties would increase due to the effects of radioactive fallout.

(Data from the "Nuclear Weapon Attack Damage Estimate Task Force Report")

Manual of Cabinet Secretariat "Points to be kept in mind in case of a nuclear explosion"

*From the Civil Protection Portal Site "Protecting ourselves against armed attacks and terrorism" http://www.kokuminhogo.go.jp/en/pdf/protecting.pdf

"Reduce exposed parts of your body by pulling a jacket over your head and covering your mouth and nose with a handkerchief, and get away from the explosion site. When doing so, avoid leeward directions and try to go in a direction perpendicular to the wind as much as possible. "

"Close the windows, seal them up, and then move to a room with no windows."