

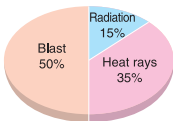
## ● The Atomic Bomb Dropped on Nagasaki ●

Atomic bombs used as lethal weapons make use of energy generated when fissile material (e.g., plutonium) undergoes fission. Compared with trinitrotoluene (TNT), atomic bombs are much more destructive. Furthermore, radioactive rays, such as gamma rays and neutron rays, generated at the time of the nuclear fission cause serious damage to the human body over extended periods of time.

The atomic bomb dropped in Nagasaki was 3.25m in length, 1.52m in diameter, and 4.5t in weight. From the shape of the atomic bomb, it was called Fat Man. When the atomic bomb exploded, its energy emission was equivalent to 21 kilotons of TNT.

The energy released from the explosion is presumed to have consisted of blast (approximately 50% of the total energy), heat rays (approximately 35% of the total energy), and radiation (approximately 15% of the total energy). These combined factors caused serious damage to Nagasaki.

Breakdown of energy



Mushroom cloud as seen from an American aircraft



B-29 bomber Bockscar

## ● Damage Caused by the Atomic Bomb ●

|   |   |
|---|---|
| August 9, 1945  | Population of Nagasaki City:<br>Approximately 240,000 |
| Number of A-bomb victims<br>(estimated as of December 1945) | Dead: 73,884<br>Injured: 74,909                       |

(Survey of 1950 made by A-bomb Material Preservation Committee of Nagasaki)



Near the hypocenter on the following day  
(Photographed by Yosuke Yamahata)

All the buildings in this area were completely burnt down. Amongst the rubble, which looked like it had been flattened by a roller, many charred bodies were found.



# NAGASAKI ATOMIC BOMB MUSEUM

## NAGASAKI ATOMIC BOMB MUSEUM

### ● Fees ●

| Admission fees | Classification              | Individuals | Groups<br>(15 people or more) |
|----------------|-----------------------------|-------------|-------------------------------|
|                |                             | Adults      | ¥ 200                         |
|                | Students and schoolchildren | ¥ 100       | ¥ 80                          |

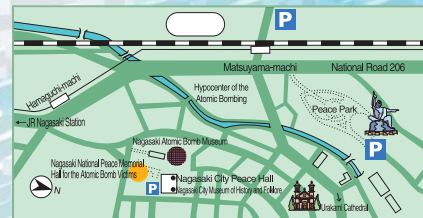
\*Admission is free for children below elementary school age.

Opening hours ● 8:30 to 17:30 (admission until 17:00)  
Closing at 18:30 from May to August (admission until 18:00)

Closed ● December 29 to 31

Toll Car Park ● Room for 12 buses and 71 standard-sized cars.

### Access Map



#### ■ From JR Nagasaki Station

- Streetcar: Take street car #1 or #3, get off at Hamaguchi-machi, and is just a five minute walk.
- Bus: Take the bus for Nimeshi, Togisu, and Menoto, get off at Hamaguchi-machi, and is just a five minute walk.

#### ■ From Nagasaki Airport

- Nagasaki Airport Limousine Bus: Take the bus for Nagasaki Station, get off at Matsuyama-machi, and walk approximately five minutes.



7-8 Hirano-machi, Nagasaki 852-8117 Japan  
TEL095-844-1231 FAX095-846-5170

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### Introduction

An atomic bomb was dropped on Nagasaki at 11:02 a.m. on August 9, 1945. The most part of Nagasaki was destroyed, and a tremendous number of lives were lost. People who narrowly escaped death suffered physical and psychological damage. Even now, many A-bomb survivors are suffering.

The Nagasaki Atomic Bomb Museum was opened in April 1996 as part of the 50th anniversary projects for the Nagasaki atomic bombing. This museum replaced the Nagasaki International Culture Hall, where a number of artifacts related to the atomic bombing were exhibited.

In addition to these artifacts, the museum exhibits a number of photographs that depict the devastation caused by the A-bomb showing the lead-up to this tragic day, the history of the development of nuclear arms and our desire for peace.

### Guidance for Museum Facilities

#### Permanent exhibition rooms (B2F)

The permanent exhibition rooms exhibit large-sized materials exposed to the blast and a replica of the A-bombed sidewall of Urakami Cathedral to reproduce the tragic state of Nagasaki immediately after the bombing. These rooms provide an easy-to-understand exhibition by using a number of articles left by the deceased along with photographs and data showing the tragic after effects of the bomb.

#### Special exhibition rooms (B2F)

In order to complement the existing exhibition and to have visitors deepen their understanding of the A-bomb and peace, several special exhibitions are also held throughout the year. \* Special exhibitions are not held all year round.

#### Audio guides (ticket counter in B2F)

Audio guides are available at 150 yen, which provide explanations for the permanent exhibition and the Nagasaki atomic bombing in Japanese, English, Chinese, Korean and Spanish.

#### Bookshop (B1F)

Books about atomic bombs and peace can be bought here.

#### Conference hall (B1F)

This hall can be rented out for a variety of activities such as peace study sessions and lectures.



Bookshop

#### Peace study rooms (B1F)

These rooms are used for a variety of activities including peace study sessions and talks given by the A-bomb survivors.



Resting Place

#### Library (1F)

Opening hours: From 9:00 to 17:00 (closed on Monday)

#### Resting Place (B1F)

A lounge for visitors.

#### Tearoom

An assortment of drinks and snacks are available.

### Facilities in the Vicinity

The Nagasaki National Peace Memorial Hall for the Atomic Bomb Victims, Nagasaki City Museum of History and Folklore, and Nagasaki City Peace Hall are located close to Nagasaki Atomic Bomb Museum.

## A August 9, 1945

The scenery of the Urakami area before the bombing is shown at the entrance of the museum and on the right hand side, photos of the districts of Nagasaki and the daily lives of people in Nagasaki before the bombing are shown. Next, a film taken of the mushroom cloud at the time of the bombing can be viewed. A clock that stopped at 11:02 is displayed on the opposite wall to remind us of the time of the explosion.

**Nagasaki prior to the Atomic Bombing**  
**Distant view of the entire area of Yamazato**  
 (provided by the US Armed Forces Institute of Pathology)



The building in the center of the photo is Urakami Cathedral.


**Wall clock**  
 A Wall Clock Stopped at 11:02

The clock was found in a house near the Sanno Shrine, which was approximately 800m away from the hypocenter. The clock was shattered by the blast and its hands stopped at 11:02 – the moment of the explosion.




## C Toward a World Free of Nuclear Weapons

**The Nuclear Age**  
 The history of nuclear weapon development, the postwar international situation, antinuclear movements around the world, and other related information are exhibited in chronological order.




**Modern Nuclear Weapons**  
 The accuracy of missiles that carry nuclear warheads has made remarkable progress since the atomic bombing of Nagasaki. The power of nuclear warheads has increased significantly with a size reduction, with intent of using on the battlefield. This section shows the number of nuclear tests conducted and provides information on present-day nuclear weapons with visual aids.




## D Video Rooms

**Video Room A-Bomb Documentary can be seen;**  
 Two movies are shown. One of them is a movie entitled Record of Nagasaki Atomic Bombing, which was edited from records of the A-bombing disaster filmed by The Special Committee for the Investigation of A-bomb Damages. The second is an animated cartoon entitled August 9 Nagasaki, which was produced jointly by the City of Nagasaki and the Prefecture of Nagasaki under a joint project for the 35th anniversary of the atomic bombing.




**Q&A Corner**  
**Q&A about the Atomic Bomb and Peace**  
 Have a go at this quiz with 50 beginner- and advanced-level questions related to the A-bomb and peace.



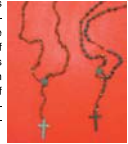
## B Damage Caused by the Atomic Bombing

This section reproduces the tragic state of Nagasaki immediately after the bombing, giving visitors a sense of the destructive power and fear of the atomic bomb.


**Nagasaki; the Atomic Wasteland**  
**Water tank from Keiho Middle School**  
 The water tank with contorted legs was located at Keiho Middle School (the present-day Nagasaki Nishi High School), which was approximately 800m away from the hypocenter.




**The Ruins of Urakami Cathedral Rosary**  
 At the time of the atomic bomb explosion, two priests were hearing the confession of several dozen parishioners at Urakami Cathedral. All of these people died under the rubble of the demolished building. Although a few rosaries were recovered from the debris, most of the rosaries that had been in the hands of the parishioners were scattered and lost.




**Events Leading up to the Nagasaki Atomic Bombing**  
**Description of Process of Atomic Bombing**  
 This section exhibits a course of events that occurred until the atomic bomb was dropped in Nagasaki.




**Leaflets dropped by American bombers**  
 The bombing of the Japanese main islands by American forces grew severe from the early months of 1945. At the same time a variety of propaganda leaflets were strewn over the cities of Japan. This leaflet provides information about the bombing of Hiroshima and the power of the atomic bomb, and it warns citizens to leave the city and to stop fighting.




**The Atomic Wasteland in Nagasaki**  
**Geographical Features of Nagasaki**  
 The monitor screens from the ceiling give an easy-to-understand explanation of the fireball, heat rays, blast, fires, and radiation of the bomb by using a model.




**Damage Caused by the Flash of Heat**  
**A schoolgirl's lunch box**  
 This is a memento of Satoko Tsushima (14 years old at the time of the bombing), who was exposed to the atomic bomb explosion in Hekasen-machi about 700 meters from the hypocenter. The rice in the lunch box was charred by the fires after the bombing. Satoko's name and class number are written on the bottom of the smaller box.




**Silhouette of a lookout and his ladder remain on a wall**  
 (Photographed by Eichi Matsunoto and presented by the Asahi Shimbun Company)  
 About 4.4 kilometers south of the hypocenter, A lookout was exposed to the flash of the atomic bomb explosion after coming down from the roof of the Nagasaki Fortress Headquarters. The bar exposed directly to the flash burned and disappeared but that in the shadows remained.




**The bones of a hand in glass**  
 Found near the hypocenter. The bones of a human hand are stuck to a clump of glass that melted as a result of exposure to the extreme heat.




**Six melted bottles**  
 Found in the ruins of a store about 400 meters from the hypocenter, these bottles melted at the top and stuck together.




**Work clothing and cap**  
 A worker was wearing this clothing when exposed to the atomic bombing at Mitsubishi Nagasaki Steel Works, about 1.2 kilometers from the hypocenter. The parts exposed directly to the heat rays are scorched black.




**Only one of the gate pillars remained standing at Sanno Shinto Shrine (Photographed by Shigeo Hayashi)**  
 About 800 meters southeast of the hypocenter. Perhaps due to shielding from the stone banister to the right, only the pillar close to the hypocenter was toppled by the blast. The other pillar remains upright to this day.




**Helmet with the remains of a skull**  
 Part of the victim's skull remains on the inner surface of this helmet found near the hypocenter.




**Dr. Takashi Nagai**  
**A portrait of Takashi Nagai**  
 Takashi Nagai, an assistant professor at Nagasaki Medical College, was exposed to the atomic bomb explosion in the college hospital. In spite of his own serious injuries, he immediately began selfless efforts to assist the victims and to launch studies concerning atomic bomb-related diseases.




**Rescue and Relief Activity**  
**Makeshift hospital at Shin-kozen Primary School (Photographed by Yasuo Tomishige)**  
 This school became the largest first-aid center in the city, where a large number of A-bomb victims were treated. Many of them died in conditions specific to the atomic bombing, when people did not have sufficient knowledge about diseases brought on by the A-bomb.




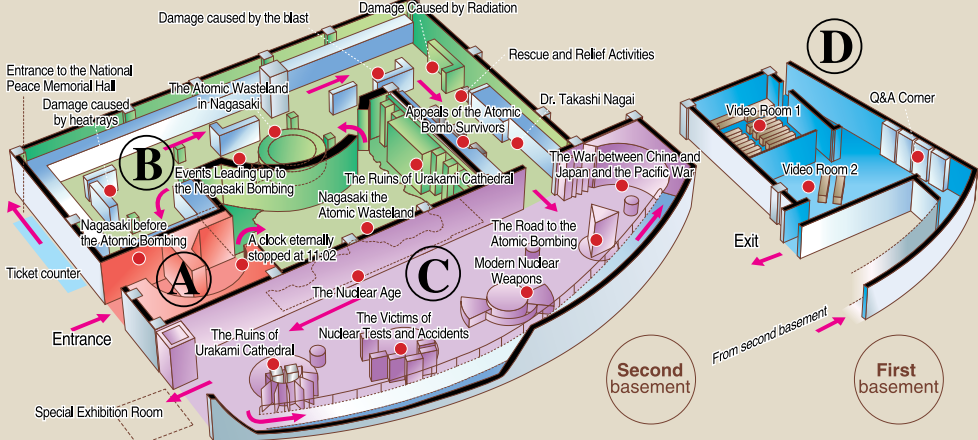
**Appeals of the Atomic Bomb Survivors**  
**Relief train for the victims**  
 This picture depicts a relief train for A-bomb victims. Kunio Terai was a locomotive engineer. He illustrated his firsthand experiences of the A-bomb at Hizan-Yamaguchi Station on the Main Nagasaki Line and operated the relief train to a crossing near the hypocenter.



**Damages Caused by Radiation**  
**Swollen Spleen**  
 The spleen became remarkably swollen under the influence of radiation. The spleen shown on the right-hand side is that of a healthy person of the same age.



**Damages Caused by the Blast**  
**Shiroyama Primary School (provided by the US Armed Forces Institute of Pathology)**  
 Located 500 meters west of the hypocenter. The carcass of the three-story ferroconcrete building remained standing after the atomic bombing. But, weakened by the blast, it later collapsed from the third story as a result of exposure to the wind and rain.

The diagram shows the layout of the museum with various exhibits labeled: Entrance, Ticket counter, Special Exhibition Room, Entrance to the National Peace Memorial Hall, Damage caused by heat rays, The Atomic Wasteland in Nagasaki, Events Leading up to the Nagasaki Bombing, Nagasaki before the Atomic Bombing, A clock eternally stopped at 11:02, The Ruins of Urakami Cathedral, The Ruins of Urakami Cathedral, The Nuclear Age, The Victims of Nuclear Tests and Accidents, The Ruins of Urakami Cathedral, The War between China and Japan and the Pacific War, Dr. Takashi Nagai, Appeals of the Atomic Bomb Survivors, Nagasaki the Atomic Wasteland, Rescue and Relief Activities, The Ruins of Urakami Cathedral, The Road to the Atomic Bombing, Modern Nuclear Weapons, Video Room 1, Video Room 2, Q&A Corner, Exit, Second basement, and First basement.