

# EARTHQUAKES: ARE YOU PREPARED?



## THE EARTHQUAKES IN FETHIYE

24 APRIL  
1957  
21:17

6.2



FETHIYE  
MUNICIPALITY

25 APRIL  
1957  
04:28

7.1

This booklet is dedicated to all the people involved in Fethiye's 1957 earthquake and all those who have died and lost friends and loved ones in earthquakes around the world.

Its translation from Turkish into English was originally inspired by The photographic archive preserved by David Parker from Derby UK, who came to Fethiye as a young member of the crew of HMS Dainty on 28<sup>th</sup> April 1957 delivering emergency provisions for the surviving town's people who had lost their homes.

He gave the photos to Mike and Lynn Pitchers on their move to Fethiye. They made them available to the English language newspaper Land of Lights.

In 1957 the population of Fethiye was 3000  
Today it is > 77,500 and rising.

8<sup>th</sup> October 2011

## EARTHQUAKES IN TURKEY FROM 2000 - 2011



**M < 3.6**  
Very Light damage



**3.6 < M < 4.3**  
Light damage



**4.3 < M < 6.3**  
Medium damage



**6.3 < M < 7.5**  
Severe damage



**M > 7.5**  
Very severe damage



**FETHIYE  
MUNICIPALITY**

# EARTHQUAKES: **ARE YOU PREPARED?**

Originally printed in 2011

**A Fethiye Municipality Booklet  
& Public Information Service**

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Turkey is a high-risk area for earthquakes. This is due to the fact that Turkey is located on the North Anatolian Fault Line, one of the most active earthquake zones in the world, and consequently earth tremors do occur from time to time. Furthermore, in the south of the country runs the West Anatolian Fault Line, which covers the Aegean and Mediterranean region.

The most effective way to minimize damage to buildings, property and human casualties caused by earthquakes is to construct tremor resistant buildings, which requires regulation and close inspection during the construction period. Another means of minimizing damage by securely fixing all fixtures and fittings in our homes and offices. In our country it is important to increase public knowledge and awareness about what do before and during tremours and earthquakes.

It is advisable to take certain precautions in homes and buildings in order to minimize the effects of quakes. Furthermore, there are some important rules to be followed before, during and after earthquakes, primarily to avoid a serious loss of life. Since earthquakes can and do occur without warning and will vary in severity, it is essential for people living in earthquake zones to be prepared at all times.

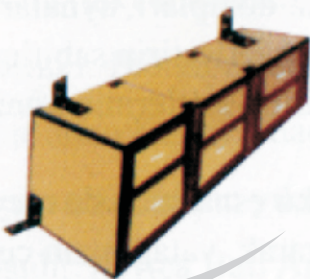


# BEFORE AN EARTHQUAKE

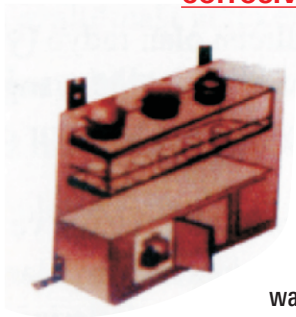
- \* Make sure that your book shelves, wardrobes, mirrors, heating apparatus and all fixtures and fitting are fixed securely to the walls so that they will not topple over.
- \* Have your fire extinguishing apparatus checked annually.
- \* Earthquakes may occur at night when you are asleep, so make sure that there are no heavy items around your bed, which could fall on you.
- \* Inflammable and chemical items should be stored in unbreakable containers and kept in way to prevent spillage, which could create additional fire hazards.
- \* Make sure that nothing blocks your escape route.
- \* Make sure that essential materials such as first aid kits, flashlights and head torches, some cash, pre-packed, nourishing foodstuffs, which would not take up too much space (for example biscuits), a sw transistor radio (with spare batteries), drinking water, a loud whistle, fire extinguishers, candles and matches are within easy reach.
- \* Locate and remember the position of fuse boxes, water mains, gas and heating valves, any places where you store chemicals or dangerous items, first aid kits, fire extinguishers, hydrants, and pre-established assembly points outside the building.
- \* If you have a boiler make certain it is well insulated and attached to the wall with a chain or inflammable hard plastic band, which should be stretched twice around the boiler and tightly secured. The fuel hose attachment should be flexible.

## Protection of safes and filing cabinets

All storage units should be secured to one another. The locks and handles of the drawers must be reinforced. The cabinets should also be fixed to the floor.



## Steps to be taken for corrosive chemicals etc



Always use unbreakable bottles and keep chemical liquids in a closed shelving unit or cupboard. It also helps to secure these containers with a rubber band or wire to fasten to prevent unnecessary breakages. Make sure all cupboards and shelves are securely fixed the shelves to the wall.

Keep the heaviest and most dangerous substances on the bottom shelf of cupboards.

Ascertain whether there are unlicensed additional flats or balconies have been added to the building in which you are living. If necessary, search for advice from the Chamber of Engineering and Architecture in your town.

## **Assembly points in the event of an earthquake**

Study the development plan of your city, town or district to pre-establish your nearest muster or assembly points. This would normally be at public buildings such as schools, mosques, parks, sports halls (football field, volleyball or tennis court), well-lit, open car parks and shopping centres.

Designate the safest locations, closest to your home, school and offices.

## **Places to shelter during a quake**

In your home establish a safe place, such as the corners of two walls, underneath a sturdy table, close to radiator cells, washing machine, washbasin, water tank.



Place your first aid and earthquake bag close to the main door, within easy reach.

**First Aid Kit**



**Survival Bag**



**Securely attach hanging items**



**Secure all freestanding furniture and contents**



# DURING AN EARTHQUAKE

## **If you are inside a building**

- \* Stay away from windows, shelves, chandeliers and other heavy items. They could fall on you. Cover your face and head to protect them against falling items and broken glass. Hide underneath a sturdy table.
- \* Stay underneath a sound door beam and kneel; stay in this position until tremors stop. Kneel at one of the inner corners of the building and stay in this position until tremors stop.
- \* Stay away from fireplaces, furnaces or places built of brick.
- \* Do not use elevators and stay away from stairs.
- \* Close the main electric switch immediately. If you detect smell of the gas, never light a fire.
- \* Stay away from all chemical liquids that may overflow or spill.

## **If you are outside**

- \* Try to reach an open space, staying away from buildings, energy lines, trees and posts.
- \* If you are unable to go to an open location. Kneel on the ground and protect your head.
- \* Stay away from slopes where there could be a rock fall or landslide.
- \* Stay away from seashore.

## Precautions to be taken during an Earthquake

OPEN THE DOOR OF  
IF YOU ARE IN THE  
ELEVATOR

EMERGENCY EXIT PRESS ALL THE  
BUTTONS AND (STAIRS) GET OUT  
AT THE FIRST STOP

IF YOU ARE IN A ROOM,  
OPEN THE DOOR

IF YOU ARE IN A ROOM,  
PROTECT YOUR HEAD  
WITH A PILLOW, A  
MATTRESS OR SIMILAR

IF YOU ARE ABOVE GROUND  
LEVEL AND CANNOT OPEN  
THE DOOR OR IF THERE IS A  
FIRE IN THE BASEMENT,  
THROW A MATTRESS OR  
SIMILAR TO THE GROUND  
AND THEN JUMP ONTO IT

WHEN LEAVING THE BUILDING, PROTECT YOUR  
HEAD WITH A BAG, MATTRESS, PILLOW, ETC





Hide underneath a solid table and protect your head.



Kneel beside your bed and protect your head.

\* If you in a car, stay away from highway barriers, bridges, intersections, energy lines, under and over passes and high buildings.

\* Pull over to the side of the road and wait in the car until the tremors stop.

## **PLACES&WAYS TO KEEP SAFE**

Household goods such as washing machines, office-type icebox, dishwashers, etc can help to save you being crushed by collapsing walls, beams and columns. They can provide a small area or vacuum where people can breathe and an oxygen supply can be maintained. They are called life vacuums. A foetal position is the best position in these life vacuums. In the foetal position the head is held in the hands, the legs are drawn up tight towards the abdomen, enabling the person to curl up as small as possible. The person's back should be at a distance of 10-25 cm from the item they are laying next to, because any broken pieces of machinery or furniture may cause injury. The foetal position is also one from which it is possible to observe what is going on. It also affords some protection for internal organs.

**The side of the bed:** If you are in a bedroom when a tremor strikes the best thing to do is to assume a foetal position on either side of the bed; whichever is the most convenient and likely to be safe. In a demolished building, very often, while the top and the bottom of the beds are wrecked, a vacuum may be created at the sides, affording protection. This also applies to bunk beds.

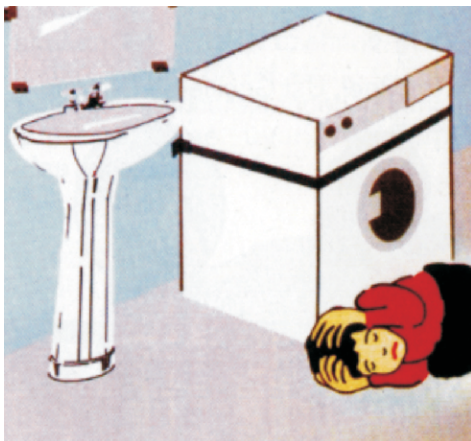
**The side of a washing machine:** In case of washing machines damaged by falling items but not completely demolished, a foetal position can be maintained by it, providing some protection.



**The sides of sofa beds:** Sofa beds filled with soft furnishings or books create a protective area. They give under heavy items falling over them but are not crushed, creating significant life vacuums by their sides.

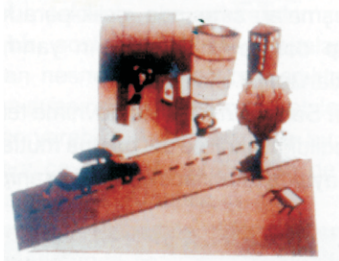
**The sides of safes and storage chests (filled with goods):** During earthquake rescue operations, it has been noted that a significant number of life vacuums have been found beside steel safes, as well as chests filled with possessions and books.

**Refrigerators and freezers:** Although they can topple during tremors, they may help to provide a safe place in the kitchen, and a place to shelter.

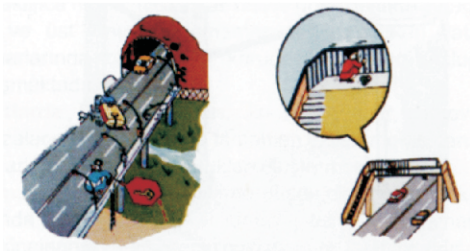


## **If you are on the street during an earthquake**

Protect your head from falling debris. Stay away from advertisement signs hoardings attached to walls. Stay away from any suspended signs and advertisement hoardings. Beware of falling masonry and flying shards of glass. Go to an open area and stay there. Remember to turn off the engine of your car, remove the keys from the ignition, taking them with you when getting out of the car. Stay away from high boundary walls.



## **Earthquakes at bridges, tunnels and overpasses**



## Earthquakes near rivers and coastal areas

Rocks may fall from above or a dam may be broken. As large waves (Tsunami) may occur after an earthquake, endeavour to get up to higher ground.



## If you are travelling by train or metro (Major cities only)

When the train stops, do not get out of the carriage before you hear an announcement telling you it is safe to do so. Also remember that items on the shelves may fall, so protect your head. Hang on to the posts and straps. There are high voltage lines on or near the rails, so beware. Do not attempt to climb out of the windows of the rail carriages without official permission. Take heed of what the authorities advise. Protect yourself against falling debris on the platform.



## Earthquakes and high buildings

If you are in the elevator, press all the buttons and get off at the first stop. Protect your head with things like a bag, a book, even a folder. Stay away from large storage cupboards, in case they are not secured, and also the coffee-machine (risk of electric shock, hot liquids etc.) Do not use the elevator. High buildings shake more violently than lower ones; therefore you have to be more careful. After the tremor appears to have stopped, go down stairs calmly, but with fast, regular steps, bent double, in order to safeguard yourself from falling debris.



## AFTER AN EARTHQUAKE

- Do not believe all you hear after an earthquake and beware of scaremongering. Consult the relevant authorities to find out what is happening.
- If you are in a crowd try to appease panic in yourself and others. Make sure the place is vacated in order. Be ready for aftershocks.
- Immediately after the earthquake, follow pre-established emergency exists and vacate the building fast, going to the pre-established meeting place.
- If water and electric lines are down, make certain that they are disconnected from the mains before you go near them.
- If no glass is broken, open the windows. If glasses are broken, wear thick clothes and shoes with thick soles because they may be numerous pieces of broken glass lying around which may cause cuts and wounds.
- Intervene to put out small fires.
- Since all lines will be occupied, do not use your telephone except if at all possible.
- Clean up or dispose of all chemicals. In particular watch out for flammable and potentially explosive items that may be scattered around.
- Turn off the electricity and gas at the mains, also turn off gas and water supplies, as well as electric heaters and cookers.
- There is a strong likelihood of a gas leak so refrain from lighting a match or a lighter during and after an earthquake.



- Plug up washbasins and toilets to prevent sewer from overflowing due to high pressure.
- Locate your first aid kit and the earthquake bag, which you will have prepared beforehand and take them with you.



- Above all, do not panic or try to move people who are seriously wounded. Wait for the arrival of the authorities, meanwhile stay in a safe place.



- Stay away from broken electric wires and as well as any conductors with which they may be in contact, such as water, metal, etc.
- Do not attempt to get into your car and try to get away from the earthquake region. This might well hinder the arrival of the rescue teams and the firemen. Also roads may be blocked after the earthquake.

- Even if you have close family, friends or acquaintances in the earthquake area, be patient and do not attempt to rush over to that area. Otherwise, due to blocked traffic, the rescue teams may be delayed.



- Except for serious cases of emergency, do not use your telephone. The telephone system may become blocked and thus prevent lines being used for real emergencies.
- Open doors slowly and carefully.
- Give a hand to the emergency teams, fire extinguishers and rubble removers if asked.
- Do not move the wounded, unless they are in danger.
- Make arrangements with your neighbours to ensure security of your family and properties if you are away from home.
- Wait at least an hour before you enter any building even if the building does not appear to be damaged.
- Do not spread stories or gossip. Listen for official announcements.

Otherwise panic can spread and panic is even more dangerous than earthquakes at this time.

- Inform your family calmly, especially children, about what is going on and raise their morale by chatting with them.
- Do not wander around the streets.
- When offered emergency supplies by the Red Crescent, take only what you need. Remember: if you take more than you really need it will result in someone else failing to get theirs.
- Cooperation and solidarity during any disaster are essential for mutual survival. Communities must support each other.
- It is not possible to prevent earthquakes, which are natural events. However, quakes have occurred throughout the evolution of the earth, which suggests it is possible to survive such things provided we work together and cooperate.
- If these simple rules are followed it is surely possible to minimize the damage caused by earthquakes in our country, even when there is a high risk of having them.
- In this way, the earthquake may become a natural event rather than a natural disaster. It is becoming clear that for countries with a consciousness of earthquakes, even the most severe earthquakes can result in relatively minor damage. Two most important points for minimizing damage from earthquakes are awareness and education. The selection of residential areas, construction of houses and business centres in line with geological features all rely on awareness and education.
- It is almost impossible to predict the time of an earthquake. That is why people living in areas at risk from earthquakes should be prepared and keep their emergency bags and provisions handy. Furthermore, when



furnishing a house or an office, furniture should be positioned and secured in a way not only to minimise collapse but also to lessen the likelihood of injury during an earthquake.

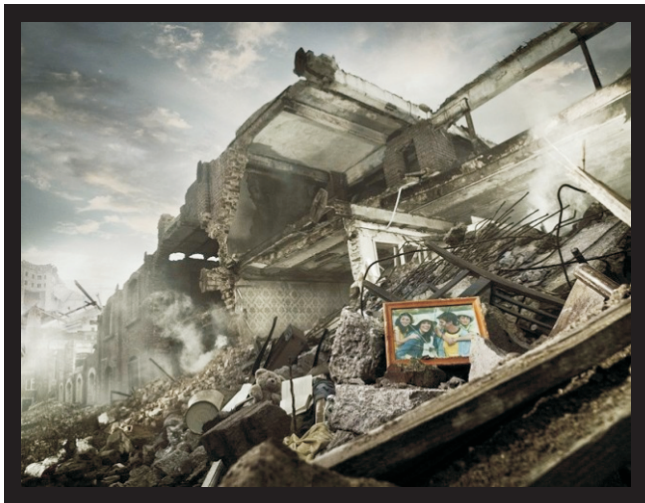
- People should never panic during an earthquake. They must act intelligently, diligently and quickly.
- Do not put yourself in danger by searching for pets. Invariably they will find you. They are instinctive creatures and may well have made themselves safe before the tremor.
- It must always be kept in mind that there is danger during and after an earthquake. At all times it is most important to cooperate and whenever possible participate in rescue operations.
- During and after a quake, one should act responsibly in the ensuing chaos. An earthquake is an unavoidable disaster. Yet, being well informed and acting responsibly and conscientiously will minimize not only injury and loss of life but also property.







An images from the  
1957 Earthquake in Fethiye



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