

nouncements in the media about the dangers of looking at the eclipse too seriously. Though most of these messages are issued with good intentions, they have their negative aspects too. We have seen that the busy metropolis roads were deserted as people were scared to watch the eclipse.

Such negative warnings may also backfire. People who heed these warnings and refrain from observing the eclipse may later come to know that others have seen it without any damage to their eyes and may feel cheated. This may lead to the lack of credibility of authority figures, whose further advice in other matters of safety like drugs etc will then be ignored.

It is unsafe to see a partial or annular eclipse with the naked eye even if 99% of the surface of the sun is covered by the moon.

As we have seen before on a narrow band passing through the country the Sun will be seen as totally eclipsed. This is that long awaited period when we should watch the solar corona with the naked eyes.

All this information is important from the point of view of safety and the authors are of the strong opinion that it is better to be safe rather than sorry.

While looking directly at the Sun it is a must that one should take the necessary precautions. There are other

phenomena too which do not require one to wear these protecting glasses to be observed.

Let us see what these are.

When we are under a tree we see the images of the sun on the ground. These images are due to the fact that the gaps between the leaves act like pinholes and a number of images of the Sun are formed on the ground. While the eclipse is in the partial phase these images are in the form of crescents and gives a very interesting effect. This effect is seen best under trees having large leaves.

Selecting the place from where you observe the eclipse is important for observing the approaching shadow. Select a high place, like a hillock etc. with a clear view in the north-east direction, preferably till the horizon. Just before the totality, the giant shadow of the moon is seen rushing towards us from this direction. This is an overwhelming experience.

Spread out a large white sheet of cloth on the open ground and just before the shadow of the moon reaches you, shadow bands can be seen on the sheet. These are alternate bands of light and shade, with a shimmering dynamism about them, like thousands of snakes slithering on the ground. This phenomenon is due to refraction in the atmosphere.

Myths and Facts

Myth No. 1: There are dangerous types of radiation (like cosmic rays etc.) associated with a solar eclipse and so it is better to play safe and avoid the eclipse and stay home.

Fact: The radiation that is present during the eclipse of the Sun is the normal light in which we move around every day i.e. the sunlight. Not only is there no such thing as a special eclipse radiation but also there are no special germs, bacteria, viruses or pathogens that affect us only at the time of the eclipse.

Myth No. 2: If you have to see the eclipse with the naked eye, it is better to observe it reflected in water that is kept in a shallow basin. The justification is that the image is sufficiently cooled in the water so that it does not harm the eye.

Fact: This is not safe. The image of the sun is reflected from the upper surface of the water, which has quite a high reflectivity. The amount of absorption of the radiation is not sufficient to make it safe for observation without a proper filter.

Myth No. 3: The radiation of the eclipse is especially harmful to pregnant women and they should avoid the use of any equipment or appliance, otherwise the foetus may be deformed at birth.

Fact: There is no harm whatsoever to a pregnant woman or to the foetus, due to the eclipse. There are many examples of pregnant women who have enjoyed the sight of the eclipse or used various equipment to view it without any harm being caused to them or their foetuses.

Myth No. 4: You can use a lamp blackened glass plate i.e. sooted glass plate to observe the partial phase.

Fact: PLEASE DO NOT DO THAT. The Human eye is not sensitive to the infrared radiation which penetrates through the lamp black. Therefore the normal precaution that the eye takes of reducing the iris does not work and you let more IR radiation fall on the retina.

Don't get carried away by these MYTHS. See the TOTAL SOLAR ECLIPSE.