Microwaving water

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This domestic incident has recently been reported to us and may be of interest to all who use a microwave.

What happened?

The person involved in the incident decided to have a cup of instant coffee. To do this, he took a cup of water and put it in the microwave to heat up – something he had done numerous times before. We do not know how long he had set the timer for, but we understand that he said afterwards that he had wanted to bring the water to boil. When the timer shut the oven off, he removed the cup. As he looked into the cup, he noted that the water was not boiling, but instantly the water in the cup 'blew up' into his face. The cup remained intact until he threw it out of his hand, but all of the water had gone up into his face due to the build-up in energy. His whole face was blistered and he had first and second degree burns to his face which may leave scars. He may also loose partial sight in his left eye.

The doctor who attended him in hospital stated that this is a fairly common occurrence and that water alone should never be heated in a microwave oven. If water is to be heated in this manner, something should be placed in the cup to diffuse the energy, such as a wooden stirring stick/spoon, teabag, etc. It is, however, a much safer choice to boil the water in a kettle.

Subsequently a safety officer reviewed a set of microwave operating instructions where under the heading 'liquids' it states:

"Liquids that have been heated by microwave can erupt suddenly. This is due to layers heated to higher levels being trapped under the surface. To avoid this happening to any liquid, e.g. coffee, custard, gravy, etc.:

1. *Stir the liquid thoroughly before heating in the microwave;*
2. *Stir the liquid at least twice during the heating time;*
3. *Stir the liquid again at the end.*

Never overheat liquids. Always use a suitable sized contained at least one third larger than the volume of liquid being heated."

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