

Microwave ovens

Microwave ovens use microwaves (part of the electromagnetic radiation spectrum) to cook food. There is no evidence to suggest that microwave ovens when used according to the manufacturer's instructions and maintained in good working order will be a radiation hazard.

Do I need to test microwave ovens at school?

The Australian Radiation Protection and Nuclear Safety Association (ARPANSA) provides information that:

- annual or routine leakage testing of microwave ovens is not considered necessary; however
- testing for leakage should occur following repair or if damage is suspected.

If an oven appears damaged or is faulty it may be more economical to purchase a new microwave oven.

Checking your microwave

A microwave oven should only be used if:

- The surface of the door is not damaged and door seals are intact.
- The door fits squarely and securely and opens and closes smoothly.
- The door hinges are in good condition.
- The oven is clean; door edges and interior surrounds are not covered with food or burnt material.
- No corrosion is evident on the door, the door hinges or the oven interior.

The risk of burns from hot foods is a more likely and serious risk than radiation emissions when using microwave ovens.

- Ensure the location and height of the microwave oven allows easy access and clear view when removing items from the oven – consider the average height of students in your classes; and
- only open containers facing away from you and be careful of foods that may be warm on the outside but are steaming hot on the inside e.g. meat pies.

How to use your microwave oven safely

- Follow the manufacturer's instructions for recommended operating procedures and safety precautions.
- Never tamper with or inactivate the interlocking devices.
- Never use the oven without the trays provided by the manufacturer unless specifically allowed in the manufacturer's instructions.
- Never operate the oven when empty.
- Never rest heavy objects such as food containers on the door while it is open.
- Clean the oven cavity, the door and seals with water and a mild detergent at regular intervals (do not use abrasive cleaning pads).
- Use only microwave-safe containers. Some glass/ceramic containers not labelled 'microwave-safe' may overheat and cause burns. Avoid using plastic containers or film unless the manufacturer explicitly states that these items are 'microwave-safe'.
- Supervise students using microwave ovens.

For more information:

[Radiation emissions from microwave ovens](#)