

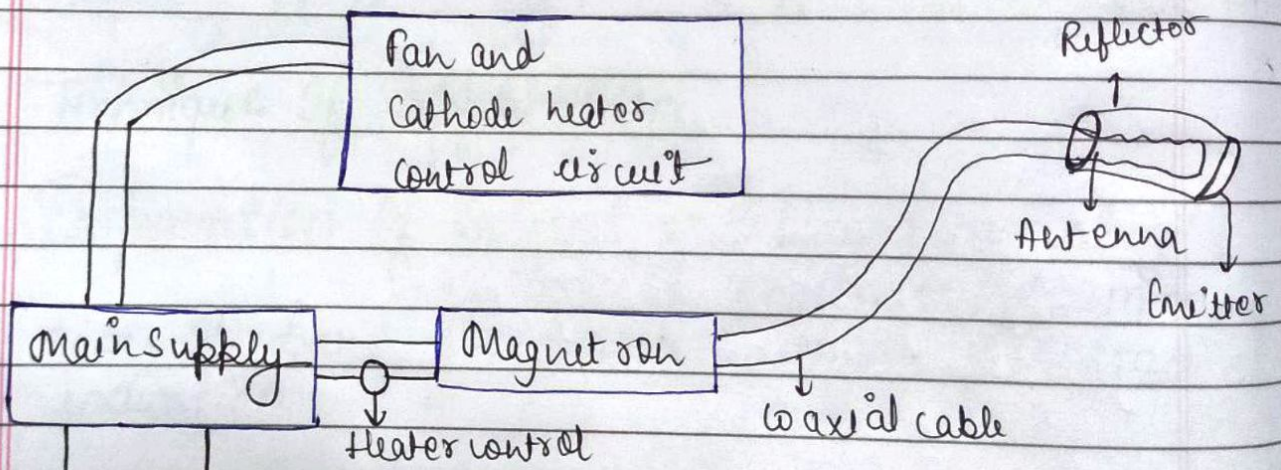
MWD, microwave Diathermy

Microwaves are form of electromagnetic radiation they lie between infrared radiation and SWD radiation in electromagnetic spectrum.

Waves of 1-100 cm classified as microwaves (decimeter waves)

Radiation with a wavelength of 12-25 cm and a frequency of 2450 MHz is frequently used to form therapeutic purpose.

* Production of MWD :-



Wireless waves are produced by high frequency current and have the same frequency as the currents with in produce them.

For the higher frequency of microwaves act relatively higher power, a special type of valve called magnetron is used with in which generates high frequency oscillating current.

These currents are collected and had along a co-axial cable to the antenna or emitter which radiates microwave.

The output of microwave energy can be controlled by varying the power supplied to the magnetron. Machines have an intensity control knob and output is indicated on carrier.

On some machines a delay switch might be fitted to allow time for the magnetron to reach its proper working temperature.

A stand by switch may be provided for use between treatment. This enables the output circuit to be disconnected with cutting of the current to the valves so that the repeated heating and cooling of valves is avoided.

The emitter also called as director or applicator gives out a beam of microwave which diverges somewhat because it is technically difficult to produce a completely uniform beam.

The effect of this divergen may be use to reduce the intensity of radiation with increasing the distance.

MWD can be either continuous or pulsed mode.