Intraoperative Radiation Therapy (IORT)

Intraoperative Radiation Therapy (IORT) is a way to give radiation during surgery. IORT can be used when cancer tumors are hard to remove or if there is a concern that your cancer will grow back. A large dose of radiation is aimed directly at your tumor while your normal tissues nearby are protected. The radiation is given in a special operating room with radiation-shielding walls.

There are 2 ways to give radiation therapy during surgery.

- **Intraoperative Radiation Therapy (IORT)**
  
  Your surgeon will remove as much of your tumor as possible during surgery. Any tumor or tissue left is treated with a single dose of radiation from a machine called a linear accelerator. A special doctor (radiation oncologist) will decide your dose and give you the radiation treatment. You do not need to take special precautions with IORT. You may need other radiation treatments after your surgery.

- **Intraoperative High Dose Rate (IOHDR)**

  If a tumor is hard to reach, tubes can be placed in or next to your tumor to give you radiation. These tubes are then connected to a High Dose Rate (HDR) internal radiation machine. The radioactive material travels in the tubes to the area of your tumor. The radiation stays at your tumor area for only a few minutes. A radiation oncologist will decide your dose and give you the radiation treatment. You do not need to take special precautions with IOHDR. You may need other radiation treatments after your surgery.