

types of breast cancer

BRCA inherited



what is BRCA inherited cancer?

inherited mutations in the **BRCA1** or **BRCA2** tumour suppressor genes heighten risk of developing various cancers.

in non-mutated forms:

- BRCA1 is involved in DNA repair & cell cycle regulation
- BRCA2 assists in homologous recombination for DNA repair



cancer develops when the **second copy of the mutated gene is also somatically mutated**, inactivating both copies and **losing their tumour-suppressing function**

breast cancer associated with BRCA mutations, often triple-negative due to the lack of ER, PR, and HER2 receptors

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treatment

common cytotoxic drugs include:

- **fluorouracil**
- **epirubicin**
- **cyclophosphamide**
- **docetaxel**



examples include:

olaparib, rucaparib

they target weakened DNA repair pathways in BRCA-mutated cells, **leading to cell death.**

for advanced or metastatic cases, a **PARP inhibitor** may be added. PARP inhibitors, often have '**parib**' at the end of their names