Post-treatment Follow-up of Prostate Cancer

Men who have been treated for prostate cancer (https://www.radiologyinfo.org/en/info/prostate-cancer) need regular prostate-specific antigen (PSA) blood tests to check if the cancer has come back. High PSA is a strong sign the cancer may be back but does not indicate if it is local or has spread outside of the prostate area. The recommended imaging test depends on the initial cancer treatment:

- Surgery to remove the prostate (radical prostatectomy)
- Radiation to the prostate and pelvic area
- Hormone therapy, chemotherapy, or immunotherapy (systematic therapies)

Specialized PET/CT (https://www.radiologyinfo.org/en/info/pet) scanning is appropriate for all three scenarios. In addition, each case has differences in follow-up tests.

Radical prostatectomy removes the prostate and some surrounding tissue. Because prostate cancer spreads slowly, if the cancer comes back, it will likely be in nearby tissue. MRI (https://www.radiologyinfo.org/en/info/mr_prostate) with intravenous contrast is usually the right test to find the cancer.

Radiation kills tumor cells to stop them from growing. If the cancer comes back, it will likely come back to the prostate. In addition to the PET/CT, a diagnostic MRI and MRI or transrectal ultrasound–guided biopsy of the prostate (https://www.radiologyinfo.org/en/info/prostate-biopsy) is appropriate.

Systematic therapies are typically used in more advanced cases, often to shrink the cancer so that it can be surgically removed. If the cancer comes back, it is likely to have spread to the bones and lymph nodes. A whole-body bone scan (https://www.radiologyinfo.org/en/info/bone-scan) and CT of the abdomen and pelvis (https://www.radiologyinfo.org/en/info/abdominct) with intravenous contrast can be done in place of the specialized PET/CT scan.

See the Prostate Cancer Treatment page (https://www.radiologyinfo.org/en/info/pros_cancer) for more information.

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