Prostate Cancer—Pretreatment Detection, Surveillance, and Staging

Regular screening is recommended for men beginning about age 55. The first sign of cancer comes from either a blood test for a protein specific to prostate cancer (PSA) or by a digital examination of the prostate through the rectum to assess enlargement or firmness. Neither of these is perfectly accurate. Suspicion of cancer warrants additional testing.

The recommended first test is transrectal ultrasound (TRUS) (https://www.radiologyinfo.org/en/info/us-prostate) with biopsy, in which small samples of prostate tissue are collected and examined for evidence of cancer. This can be negative even if there is tumor.

If the biopsy shows no cancer but the PSA levels are still high, an MRI of the prostate (https://www.radiologyinfo.org/en/info/mr_prostate) may be appropriate.

For low-risk prostate cancers (based on the microscopic appearance of the cancer—Gleason score), MRI followed by TRUS- or MRI-guided biopsy (https://www.radiologyinfo.org/en/info/prostate-biopsy) is recommended if the MRI reveals a suspicious lesion.

Patients with "favorable type" intermediate risk may elect to watch and wait. MRI can be used to monitor the cancer. TRUS- or MRI-guided biopsy may be used if there is a change.

Patients with "unfavorable type" intermediate risk should chose to treat their cancer and then undergo further evaluation with CT and nuclear medicine bone scans.

High-risk prostate cancer should be monitored using CT of the abdomen and pelvis (https://www.radiologyinfo.org/en/info/abdominct) with intravenous contrast and a bone scan (https://www.radiologyinfo.org/en/info/bone-scan) of the whole body.

Once the presence, extent, and severity of prostate cancer have been determined, identification of risk can help direct treatment planning.

See the Prostate Cancer page (https://www.radiologyinfo.org/en/info/prostate-cancer) for more information.

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