

PATIENT GUIDE

Raised PSA, MRI and biopsy

A practical guide to understanding the investigation pathway and the decisions you may face.

For people with a raised or changing PSA result, and for relatives supporting them.

Prepared by Birmingham Advanced Urology

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Start with the whole clinical picture

A raised prostate-specific antigen (PSA) result does not diagnose prostate cancer. PSA can rise for several reasons, and the significance of one result depends on context.

What can influence PSA?

- Benign prostate enlargement and increasing age.
- Prostate inflammation or urinary infection.
- Recent ejaculation, vigorous cycling, urinary instrumentation or catheterisation.
- Prostate cancer - one possible cause, but not the only cause.

Clinical approach: the question is not simply “Is the PSA high?” It is “What does this PSA mean for this person, and what information would change the next decision?”

Information worth bringing

- Every previous PSA result with its date, not only the latest value.
- Current medication, especially finasteride or dutasteride.
- Previous MRI, biopsy or urology clinic letters.
- Relevant family history and any urinary symptoms.

The usual investigation pathway

Stage	What may happen	Why it matters
1. Clinical review	PSA history, symptoms, medicines, infection risk, family history, general health and examination are considered.	Confirms whether repeat testing, imaging or follow-up is sensible.
2. Repeat or refine	A repeat PSA or urine test may be appropriate when a temporary cause is possible. PSA density may be calculated when prostate volume is known.	Avoids making an invasive decision from an isolated or misleading result.
3. Multiparametric MRI	MRI looks for suspicious areas and estimates prostate volume. Results are commonly expressed using a five-point score.	Helps refine risk and can guide targeted biopsy.
4. Biopsy decision	Monitoring or biopsy is discussed using PSA, examination, MRI, age, health and preferences together.	Not every raised PSA requires immediate biopsy.
5. Results and plan	If biopsy is performed, pathology is combined with imaging and clinical information.	Determines reassurance, surveillance or treatment discussion.

This pathway is illustrative. The order and need for each step changes with the clinical findings.

Understanding prostate MRI

MRI can show prostate size, suspicious areas and whether an abnormality appears confined to the prostate. It cannot provide a tissue diagnosis and it does not detect every clinically significant cancer.

MRI score	General meaning	Possible next discussion
1-2	Clinically significant cancer is less likely.	Monitoring may be reasonable when the remaining risk is low.
3	The finding is uncertain.	PSA density, examination, family history and personal priorities become especially important.
4-5	Clinically significant cancer is more likely.	Targeted biopsy is commonly discussed if clinically appropriate.

Questions to ask after MRI

- What is my MRI score and prostate volume?
- What is my PSA density?
- Is there a target that could be sampled?
- What is the estimated risk if I do not have a biopsy now?

When a biopsy is considered

A biopsy samples prostate tissue so a pathologist can determine whether cancer is present and, if so, describe its grade. The decision should balance the chance of finding important disease against the burdens and risks of biopsy.

Transperineal biopsy

Samples are taken through the skin between the scrotum and anus, usually with imaging guidance. Local or general anaesthesia may be used depending on the pathway. Targeted cores can sample an MRI abnormality and systematic cores can sample the wider gland.

Practical points to discuss

- Blood-thinning medication and whether it needs adjustment.
- Anaesthetic plan, urine testing and local hospital instructions.
- Temporary blood in the urine or semen, discomfort and urinary symptoms.
- How and when results will be communicated.

Seek urgent medical advice after biopsy if you develop fever or shivering, feel seriously unwell, cannot pass urine, or have heavy or persistent bleeding.

Your consultation checklist

Use these prompts to leave the appointment with a clear plan.

- What factors make my result more or less concerning?
- Should the PSA be repeated, and under what conditions?
- Would MRI add useful information now?
- If MRI is reassuring, what monitoring interval is appropriate?
- If biopsy is advised, what type and why?
- What would happen if I chose monitoring instead?
- How will I receive results, and who should I contact if symptoms change?

Personal notes

Sources and important information

Authoritative sources

NHS. Prostate cancer: tests and next steps.

nhs.uk/conditions/prostate-cancer/tests-and-next-steps/

NICE guideline NG131. Prostate cancer: diagnosis and management.

nice.org.uk/guidance/ng131

NICE quality standard QS91. Prostate cancer.

nice.org.uk/guidance/qs91

About this guide

This guide supports, but does not replace, consultation with a qualified clinician. It does not provide an individual diagnosis or recommend a particular investigation. Local hospital protocols can differ.

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