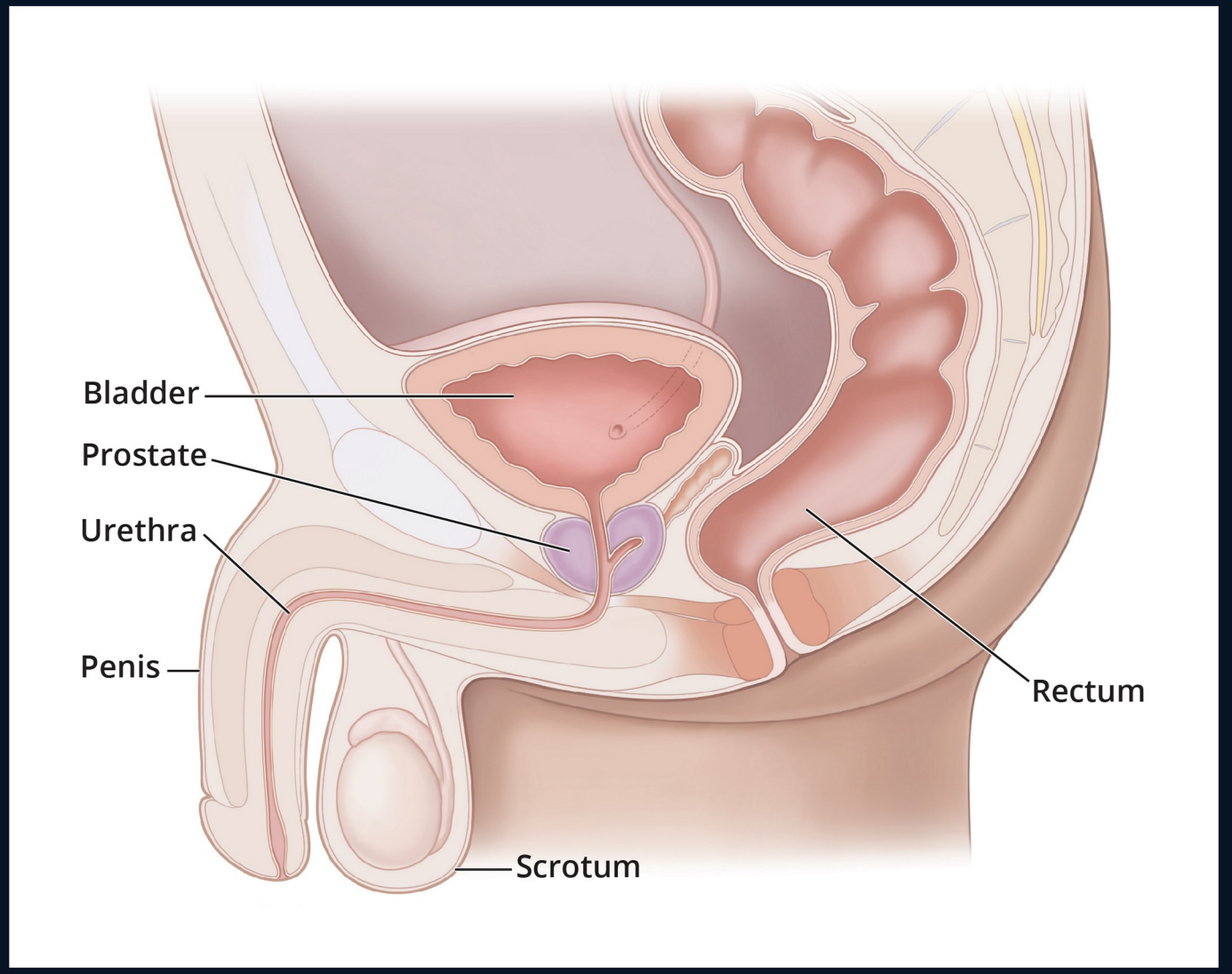
factbasedurology

PROSTATE HEALTH / 01

What does the prostate do?

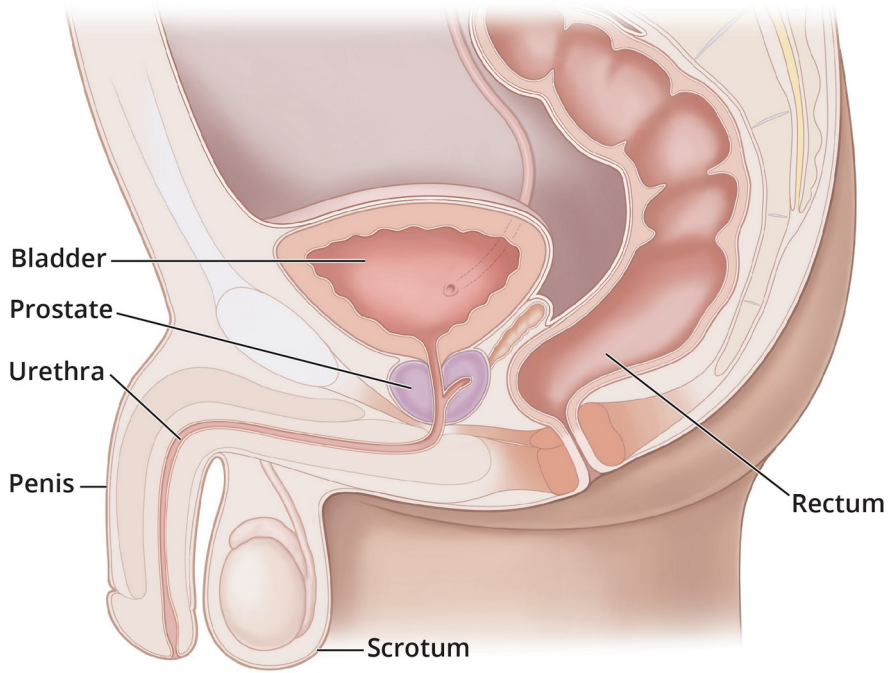
A visual guide to normal anatomy and function



NIDDK / NIH · labeled anatomy illustration

THE CENTRAL QUESTION

Why does this gland come up in two systems?



URINATION

The urethra runs through it.

REPRODUCTION

It contributes fluid to semen.

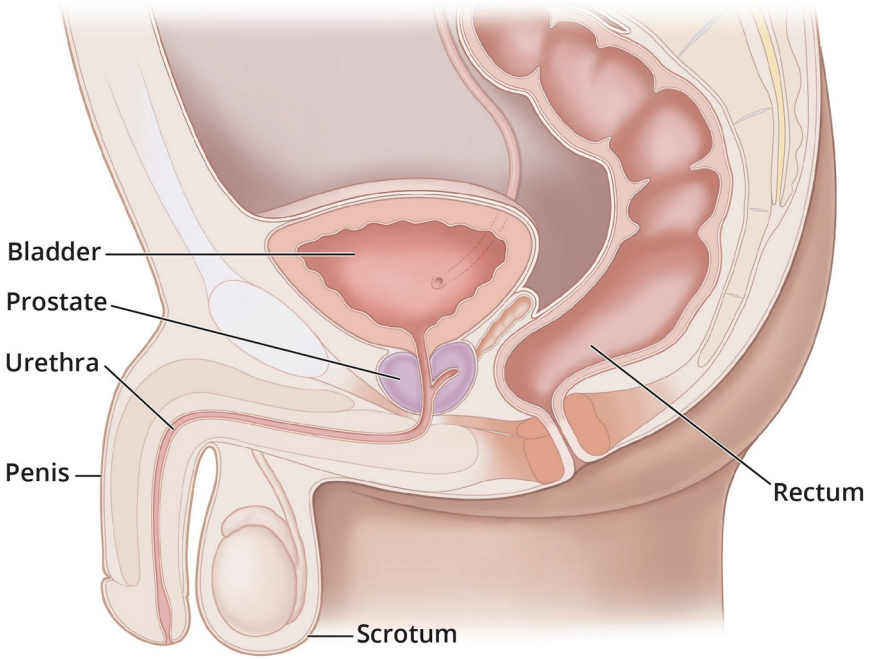
NCI; illustration: NIDDK / NIH

ORIENTATION

Find the bladder first

01

The bladder stores urine. Look for it above the prostate.



Anatomy illustration: NIDDK / NIH

LOCATION

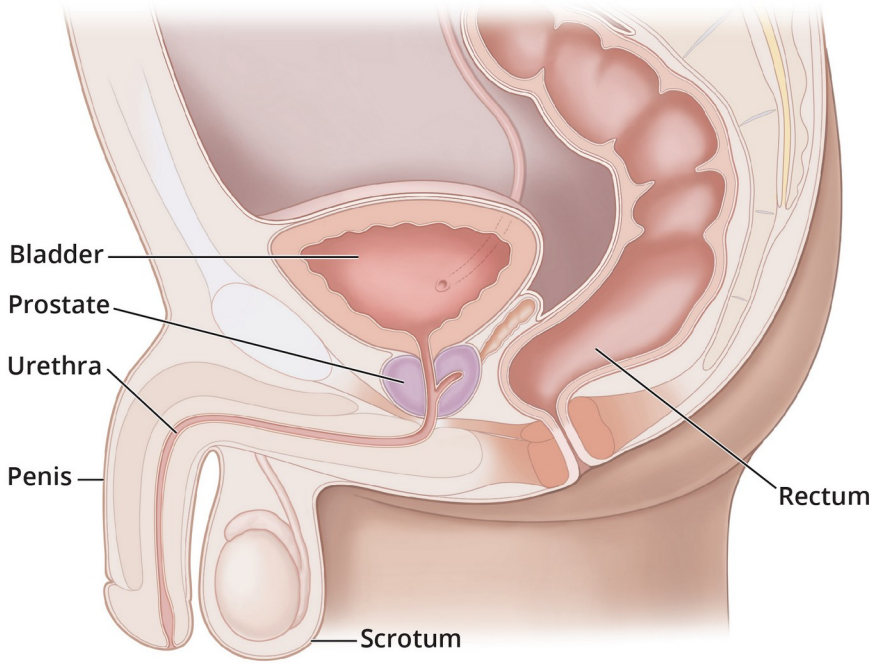
The prostate sits below the bladder

BELOW

the bladder

IN FRONT OF

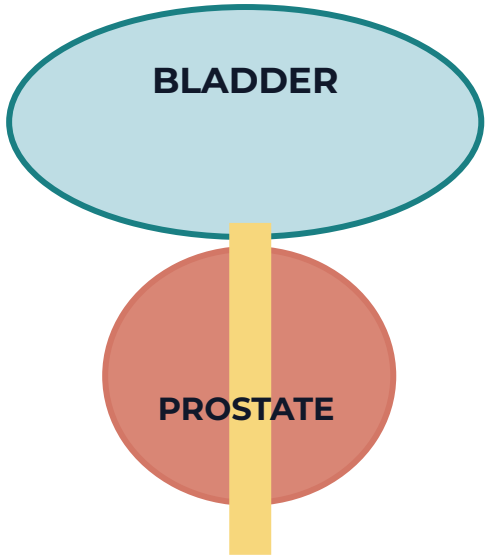
the rectum



NCI; illustration: NIDDK / NIH

TRY IT YOURSELF

Pause: trace the yellow tube



Simplified learning diagram

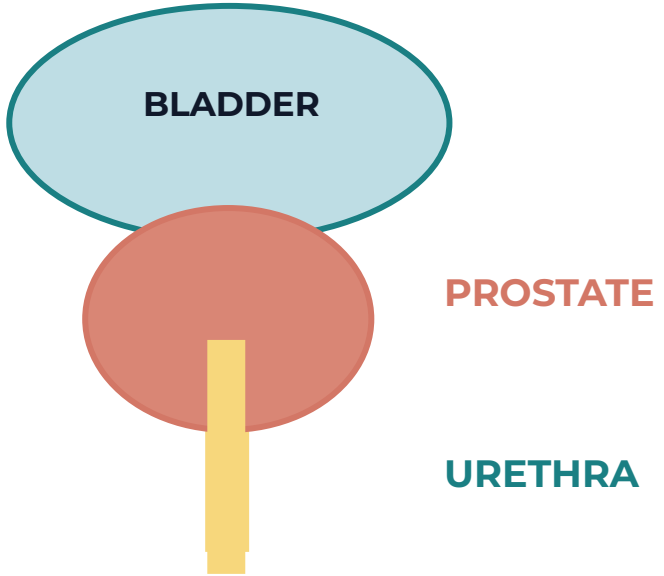
Where does the tube go after it leaves the bladder?

PAUSE 5 SECONDS

Schematic based on NIDDK / NIH anatomy

THE ANSWER

The urethra passes through the prostate



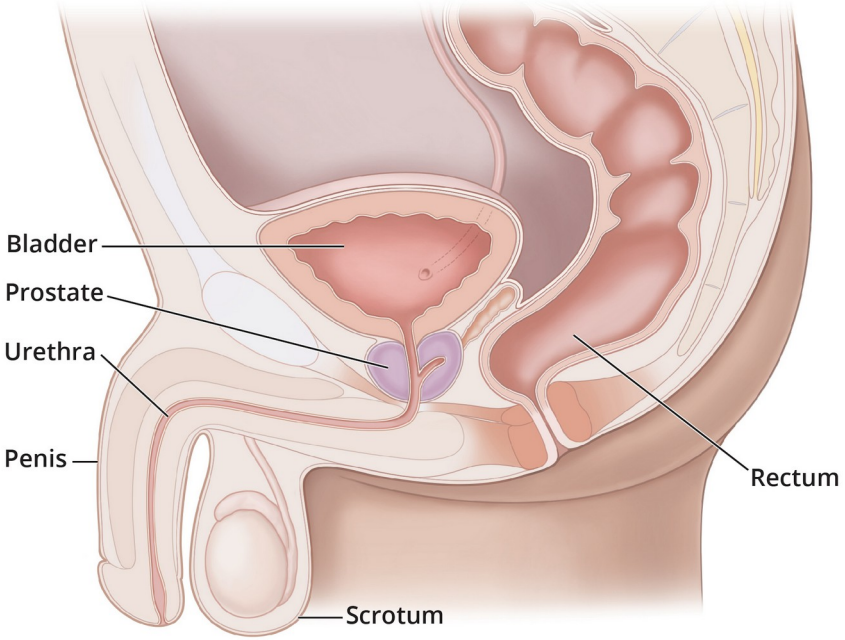
Schematic, not to scale

The prostate surrounds the first part of the urethra.

NCI; schematic redrawn from NIDDK anatomy

TWO PATHWAYS

One tube, two different events



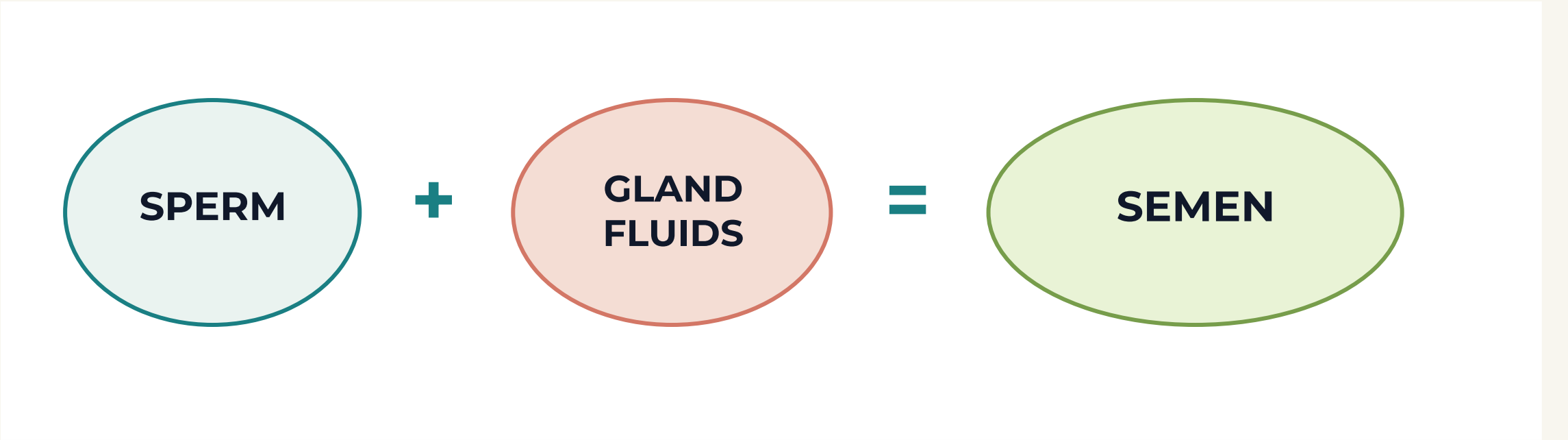
1 Urine leaves the bladder through the urethra.

2 Semen travels through the urethra during ejaculation.

NCI; illustration: NIDDK / NIH

FUNCTION 1 OF 2

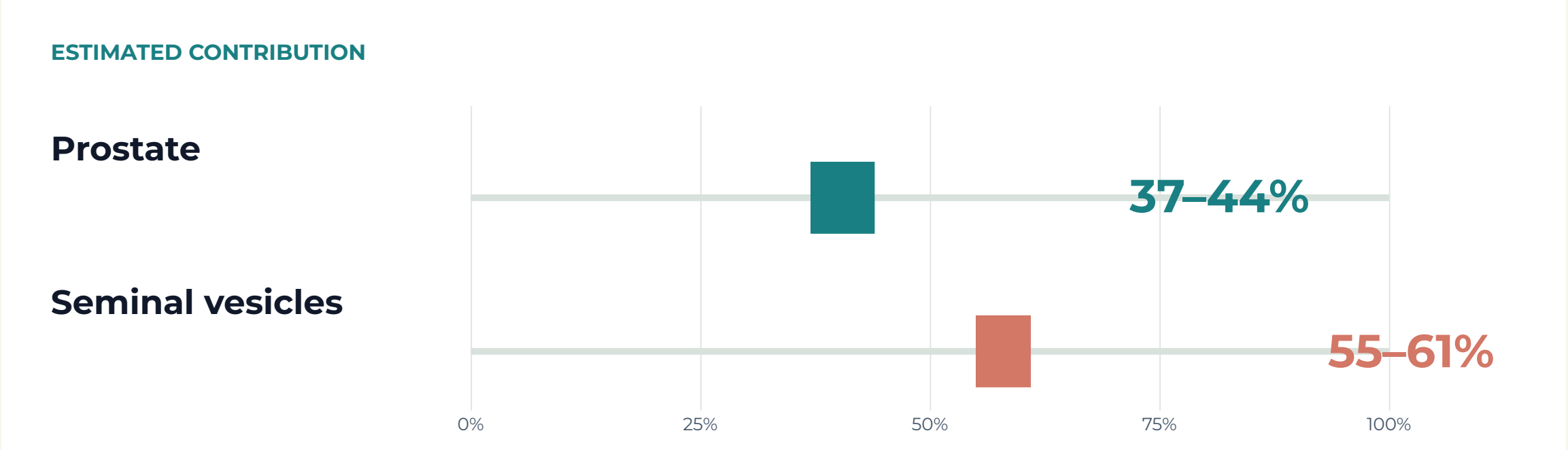
The prostate adds fluid to semen



The prostate contributes one portion of the fluid.

ONE STUDY, 68 PARTICIPANTS

How much fluid does the prostate contribute?

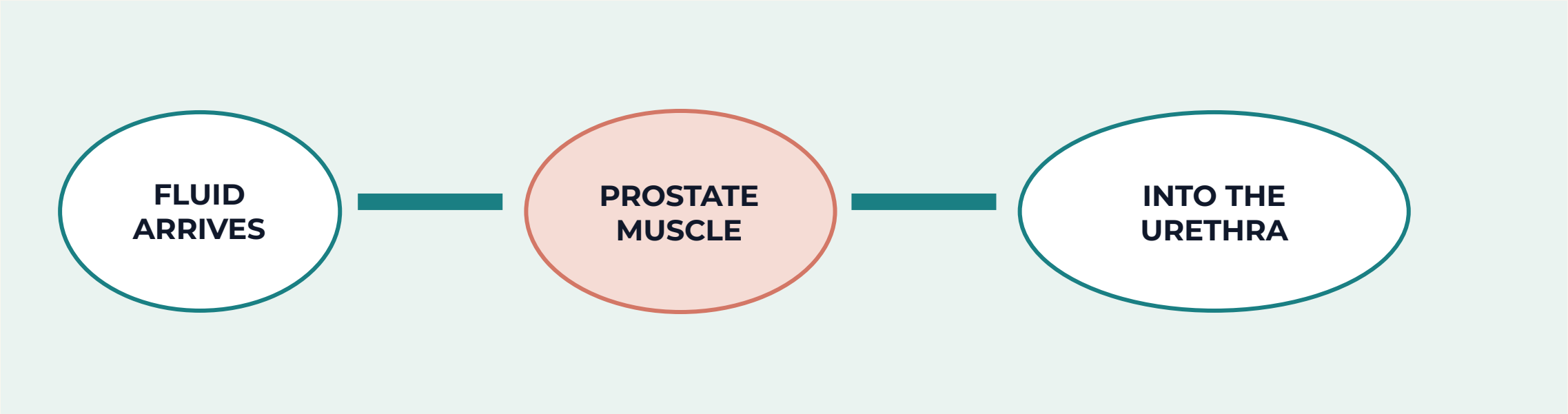


These are model estimates from one study, not fixed values for every person.

Ndovi et al. (2007) · estimated share of whole ejaculate

FUNCTION 2 OF 2

Muscle action helps move semen into the urethra



A simplified sequence of ejaculation

A PROTEIN WITH A FAMILIAR NAME

PSA has a normal role in semen

PROSTATE CELLS

make PSA

IN SEMEN

PSA helps semen liquefy after ejaculation.

A blood PSA result is a separate clinical question.

NCI PSA fact sheet; Anamthathmakula & Winuthayanon (2020)

KNOWLEDGE CHECK

Can you explain the prostate in one sentence?

Pause. Name its two reproductive actions.

ANSWER ON THE NEXT SCREEN

THE ANSWER

It contributes fluid and helps move semen

01 Adds fluid to semen

02 Muscle action helps move semen into the urethra

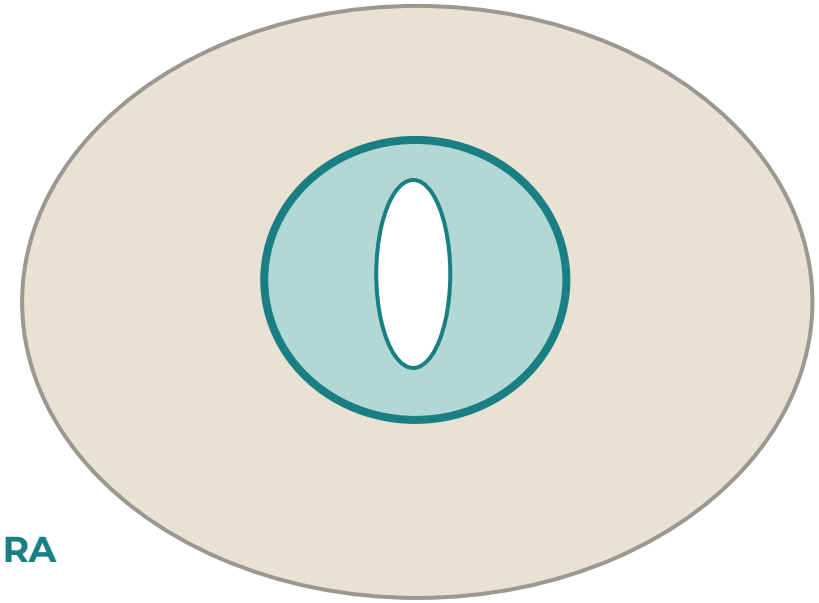
INSIDE THE GLAND

The gland has named anatomical zones

01	**TRANSITION**	Surrounds the prostatic urethra
02	**PERIPHERAL**	Toward the outer back and sides
03	**CENTRAL**	Associated with ejaculatory ducts

WHY THE MAP MATTERS

The transition zone encircles the urethra



Simplified relationship, not a measured section

Tissue growth near this passage can affect urine flow.

Symptoms need clinical evaluation.

NCI SEER; NIDDK BPH

CLINICAL CONTEXT

A zone label is anatomy, not a diagnosis

WHAT A MAP SHOWS

Where structures sit in relation to each other

WHAT IT CANNOT SHOW

Whether one person has BPH, cancer, or an obstruction

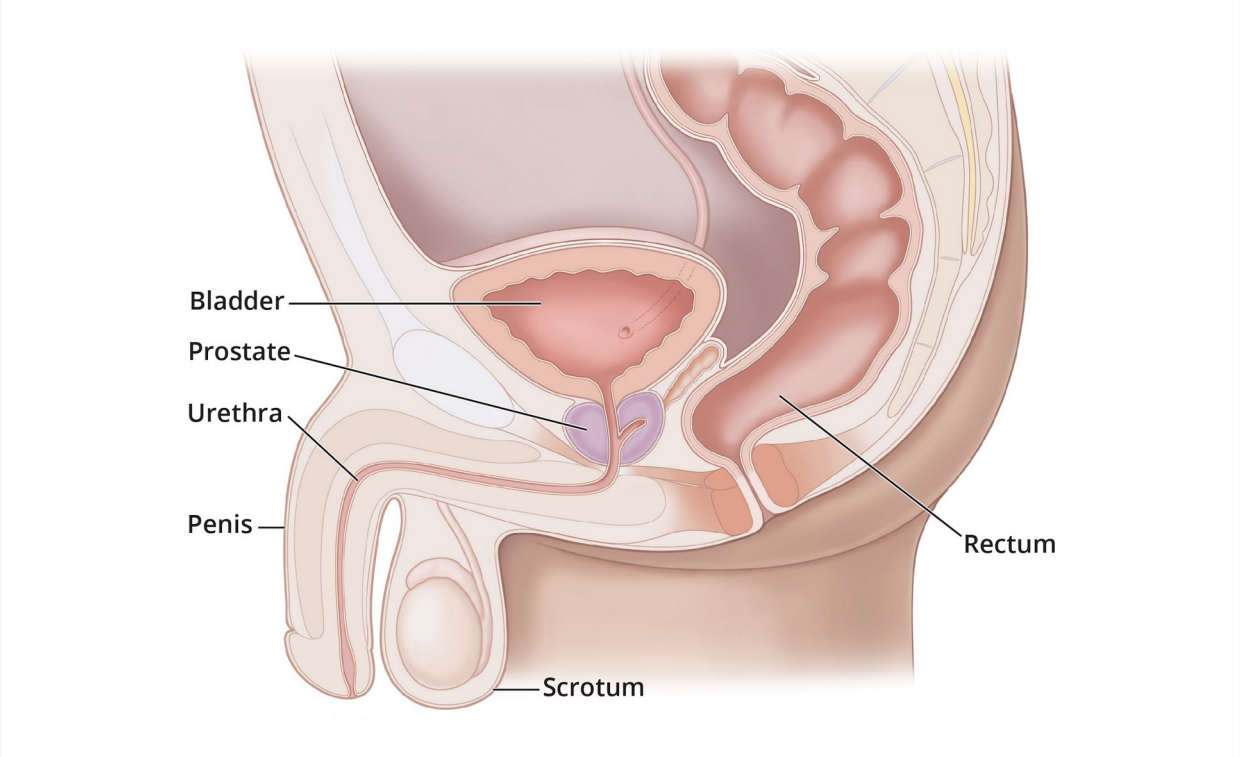
RECAP

Three facts to carry into the series

01 BELOW THE BLADDER

02 AROUND THE URETHRA

03 FLUID + MUSCLE ACTION



Next: what changes when the prostate enlarges?

We will separate gland growth, measured size, and urinary obstruction.

factbasedurology / FBU-P02

EVIDENCE LEDGER

Sources and visual credits

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https://www.cancer.gov/types/prostate/understanding-prostate-changes

NCI SEER · Prostate Anatomy

https://training.seer.cancer.gov/prostate/anatomy/

NIDDK / NIH · Labeled male reproductive tract

https://www.niddk.nih.gov/news/media-library/23070

NIDDK · Enlarged Prostate (BPH)

https://www.niddk.nih.gov/health-information/urologic-diseases/prostate-problems/enlarged-prostate-benign-prostatic-hyperplasia

Ndovi et al. (2007) · Ejaculate contribution study

https://pubmed.ncbi.nlm.nih.gov/17076697/

NCI · PSA fact sheet; semen liquefaction review

https://www.cancer.gov/types/prostate/psa-fact-sheet
https://pmc.ncbi.nlm.nih.gov/articles/PMC7523691/