

Understanding metastatic castration-resistant prostate cancer (mCRPC)

About mCRPC



With more than **1.4 million new cases** in 2020 alone, prostate cancer is the most **frequently diagnosed cancer among those with a prostate gland** in more than half the world and the **second most diagnosed cancer** overall, after breast cancer.^{1,2}



In castration-resistant prostate cancer, the tumor shows signs of growth, such as rising prostate-specific antigen levels, despite the use of hormone treatments that lower testosterone.³ In mCRPC, the tumor spreads to other parts of the body, such as neighboring organs or bones, and remains unresponsive to hormone treatment.³



Patients with metastatic prostate cancer have an approximately 3 in 10 chance of surviving 5 years.²



There remains a high unmet need for new treatment options for patients with progressive, metastatic prostate cancer.

Understanding PSMA, and what it means for you



What is it?

Prostate-specific membrane antigen, or PSMA, is a phenotypic biomarker located on the surface of certain cells.⁴ In metastatic prostate cancer, if cancer cells have an abundance of the PSMA biomarker, it means the cancer is “PSMA positive”.⁴



Why it matters?

More than **80%** of prostate cancer tumors highly express the PSMA biomarker⁵⁻¹¹, meaning it may help you and your doctors assess where your metastatic prostate cancer is progressing and where in the body it has spread. PSMA may help inform the decisions you and your doctor will make regarding your metastatic prostate cancer treatment plan.



What can you do?

Talk to your doctor about PSMA and what it may tell you about your metastatic prostate cancer. More information about your metastatic prostate cancer may help you and your doctor understand your disease and plan your care.



Questions you might want to ask your doctor include:

- How can I learn if my advanced prostate cancer is PSMA positive?
- How would my cancer being PSMA positive impact my cancer care?

References

1. Sung H, Ferlay J, Siegel RL, et al. Global cancer statistics 2020: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA Cancer J Clin*. 2021;71(3):209-249. doi:10.3322/caac.21660. 2. National Cancer Institute (NCI) Surveillance, Epidemiology, and End Results (SEER) Program. <https://seer.cancer.gov/statfacts/html/prost.html>. Accessed August 2021. 3. Kirby M, Hirst C, Crawford ED. Characterising the castration-resistant prostate cancer population: a systematic review. *Int J Clin Pract* 2011;65(11):1180-92. 4. Chang S. S. (2004). Overview of prostate-specific membrane antigen. *Reviews in urology*, 6 Suppl 10(Suppl 10), S13-S18. 5. Hupe MC, Philippi C, Roth D, et al. Expression of prostate-specific membrane antigen (PSMA) on biopsies is an independent risk stratifier of prostate cancer patients at time of initial diagnosis. *Front Oncol* 2018;8:623. 6. Bostwick DG, Pacelli A, Blute M, et al. Prostate specific membrane antigen expression in prostatic intraepithelial neoplasia and adenocarcinoma: a study of 184 cases. *Cancer* 1998;82(11):2256-61. 7. Pomykala KL, Czernin J, Grogan TR, et al. *J Nucl Med* 2020;61(3):405-11. 8. Sant GR, Knopf KB, Albala DM. Live-single-cell phenotypic cancer biomarkers-future role in precision oncology? *NPJ Precision Oncology* 2017;1(1):21. 9. Minner S, Wittmer C, Graefen M, et al. High level PSMA expression is associated with early PSA recurrence in surgically treated prostate cancer. *Prostate* 2011;71(3):281-8. 10. Hope TA, Aggarwal R, Chee B, et al. *J Nucl Med* 2017;58(12):1956-61. 11. Hofman MS, Violet J, Hicks RJ et al. *Lancet Oncol* 2018;19(6):825-33.