Testicular Cancer - Latest Research [1]

This section has been reviewed and approved by the Cancer.Net Editorial Board [2], 03/2014

ON THIS PAGE: You will read about the scientific research being done now to learn more about this type of cancer and how to treat it. To see other pages, use the menu on the side of your screen.

Doctors are working to learn more about testicular cancer, ways to prevent it, how to best treat it, and how to provide the best care to people diagnosed with this disease. The following areas of research may include new options for patients through clinical trials [3]. Always talk with your doctor about the diagnostic and treatment options best for you.

Since treatment is successful for most men with testicular cancer, one of the major goals for the future is to reduce side effects and complications from treatment for men with early-stage or good-risk cancers. In addition, treatments for poor-risk and recurrent cancers are being studied in clinical trials, along with basic research on the causes and genetics of testicular cancer.

High-dose chemotherapy followed by stem cell transplantation. Higher doses of chemotherapy can put recurrent testicular cancer into remission. A stem cell transplant [4] is a medical procedure in which diseased bone marrow is replaced by highly specialized cells, called hematopoietic stem cells. Hematopoietic stem cells are blood-forming cells found both in the bloodstream and in the bone marrow. For testicular cancer, a man?s own stem cells are obtained before high-dose chemotherapy is given. After chemotherapy, blood stem cells are infused back into the patient?s vein to replace the bone marrow and restore normal blood counts. Despite many studies, this has never been shown to be better than either the standard chemotherapy combination of BEP for first-line therapy for patients with poor-risk disease or the standard chemotherapy regimens of VeIP or TIP for men who have a recurrence after BEP. Researchers are also comparing this to high doses of the drug combination TICE, which is paclitaxel, ifosfamide, carboplatin, and etoposide, along with stem cell transplantation. Additional clinical trials are being done to investigate whether changes in high-dose chemotherapy are more effective.

New chemotherapy schedules. Researchers are looking into shorter schedules of BEP for patients with advanced disease.

Genetic studies. Researchers are analyzing the DNA from tumor samples of men with testicular cancer to find out if any genes are associated with testicular cancer. In addition, there are studies

underway to look at possible inherited genetic factors leading to cryptorchidism and risk of testicular cancer.

Supportive care. Clinical trials are underway to find better ways of reducing symptoms and side effects of current testicular cancer treatments in order to improve patients? comfort and quality of life. Because more men are surviving testicular cancer, doctors are exploring the long-term effects of high-dose chemotherapy on brain function, such as memory loss, decreased speed of processing information, lowered attention span, anxiety, depression, and fatigue. Other studies focus on sperm quality and heart disease risk for testicular cancer survivors.

Looking for More About the Latest Research?

If you would like additional information about the latest areas of research regarding testicular cancer, explore these related items that take you outside of this guide:

- To find clinical trials specific to your diagnosis, talk with your doctor or search online clinical trial databases now [5].
- Review research on testicular cancer announced at the ASCO Annual Meeting [6].
- Visit ASCO?s *CancerProgress.Net* [7] website to learn more about the historical pace of research for testicular cancer. Please note this link takes you to a separate ASCO website.

The next section addresses how to cope with the symptoms of the disease or the side effects of its treatment. Use the menu on the side of your screen to select Coping with Side Effects, or you can select another section, to continue reading this guide.

Links:
[1] http://www.cancer.net/cancer-types/testicular-cancer/latest-research
[2] http://www.cancer.net/about-us
[3] http://www.cancer.net/node/19667
[4] http://www.cancer.net/node/24717
[5] http://www.cancer.net/node/24878
[6] http://www.cancer.net/node/29441
[7] http://www.cancerprogress.net/timeline/testicular