

Advanced Treatment for Metastatic Melanoma

Only about 1% of all skin cancer cases are melanomas. However, melanoma is by far the deadliest form of skin cancer. Until recently, patients had limited options in melanoma treatment, especially if their melanoma was metastatic, meaning it had begun to spread throughout the body.

Thanks to recent advances in cancer treatment research, there are now a few promising options – [tumor-infiltrating lymphocyte \(TIL\)](#) immunotherapy, [fecal microbiota transplant](#) and [immunopheresis](#)

These groundbreaking techniques provide hope for many patients with even very advanced melanoma.

Unique treatments for our patients:

1. **Sheba Medical Center is a leader in tumor-infiltrating lymphocytes (TIL) immunotherapy for metastatic melanoma.**

This treatment uses the patient's own immune system lymphocytes (white blood cells). These lymphocytes will attack tumor cells, but in metastatic melanoma patients, the lymphocytes are not strong enough to make much progress against the tumor. This is where TIL comes in.

After removing part of the tumor, healthcare personnel isolate the lymphocytes. The lymphocytes are grown to very large numbers in our advanced laboratory. Then the lymphocytes are reintroduced into the patient's body, where they hunt down tumor cells. This groundbreaking technique provides hope for many patients with even very advanced melanoma that have had little or no benefit from conventional therapies. About 50% of these patients show improvement with TIL and approximately 25% of patients are cured of their melanoma.

"Usually, within 4 weeks, we see the beginning of the clinical results. In the CT scans, you see the metastasis getting smaller and smaller, and some of the metastasis finally disappear. If you achieve complete response, it's durable, and you actually cure patients with advanced melanoma" – says [Prof. Jacob Schachter](#), Director Emeritus of the Ella Lemelbaum Institute for Immuno-Oncology at

the Sheba Medical Center, one of the most prominent oncologist practicing in the field of melanoma in Israel.

2. Fecal microbiota transplant

This treatment was developed under the assumption that the bacteria found in the digestive track work closely with the immune system. A change in the flora of the bacteria has an effect on many health conditions, including the course of the oncological disease. It was suggested that if the immunotherapy treatment does not work, a change in the composition of the bacteria would make the patient non-resistant, i.e. respond to immunotherapy. In this treatment, bacteria are taken from melanoma patients who have responded to the treatment and introduced to unresponsive patients. The patient's flora changes and he begins to respond to immunotherapy.

3. Immunopheresis

The innovative Immunopheresis approach uses the a special filter to remove specific immune-suppressive cytokines produced by cancer tumors. Selective removal of these targeted cytokines is intended to neutralize cancer's ability to block a patient's natural immune defense mechanisms which are significantly compromised in late-stage, metastatic disease and thereby "re-energizes the immune system to aggressively fight cancer." Immunopheresis is a "subtractive therapy", in contrast to drugs that are "additive", subtractive therapy is meant to avoid the side effects, toxicity and negative impact on a patient's quality of life typical of other cancer treatments.

However, since these treatments are very cutting edge, they have very limited availability. **There are only a handful of medical institutions in the world that offer the above-mentioned therapies.** One of those is on the forefront of melanoma research and trials – **Sheba Medical Center in Israel.**



Tel: +972-3530-3100

Fax: +972-3530-8040

Why Choose Sheba for Advanced Melanoma Immunotherapy?

Sheba Medical Center in Israel is a great choice for your melanoma Immunotherapy treatment destination for several reasons:

- Sheba Medical Center sets the standard for excellence in patient-focused care. For three consecutive years the Newsweek has included Sheba on their prestigious list of the Top Ten Best Hospitals Worldwide. This endorsement recognizes Sheba as a leading force in medical science and biotechnological innovation – maximizing the latest technologies while always providing holistic, outstanding healthcare. Sheba is strongly committed to delivering personalized, expert medicine to everyone from all over the world.
- Doctors at Sheba have participated in TIL research from the very beginning, and Sheba has a number of advantages when it comes to TIL immunotherapy and melanoma treatment in general:
- Sheba has received full accreditation from the [Joint Commission International \(JCI\)](#), the foremost international healthcare accrediting authority.
- [MD Anderson Cancer Center](#) in the US and Sheba Medical Center are close partners and sister institutions.
- The Ella Lemelbaum Institute for Immuno-Oncology at Sheba is the largest and most advanced melanoma institute in the region.
- Sheba has both advanced treatment and laboratory facilities. At Sheba, patients receive every aspect of their TIL treatment in a single facility. Even the lymphocyte genetic engineering is conducted in-house.
- **Sheba has an International Medical Tourism Division wholly devoted to your care and comfort.** We are happy to assist you with travel arrangement, translation, and anything else you need.