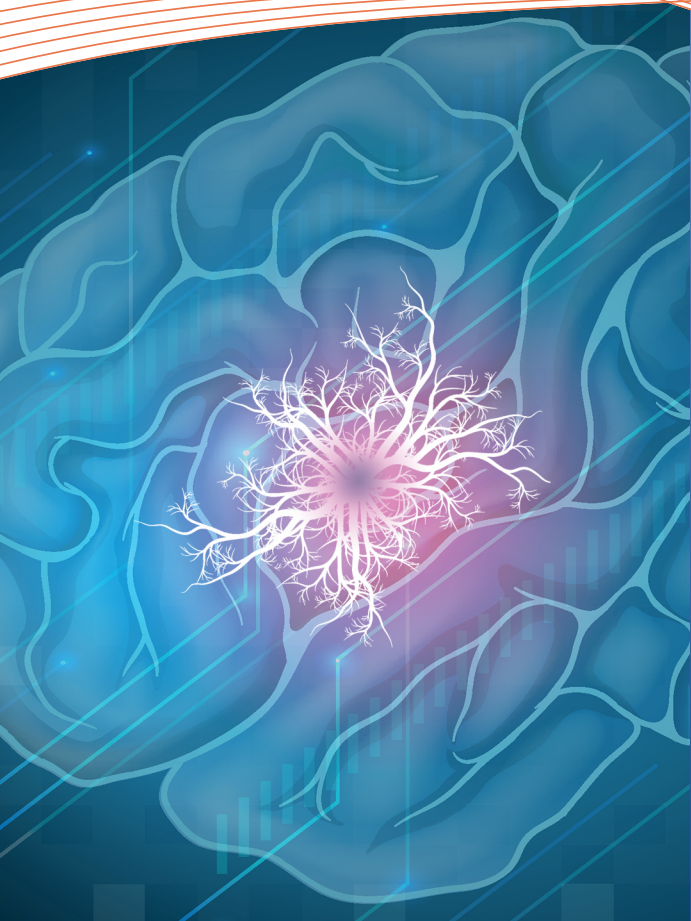


# Learning about Glioblastoma & How It May Be Treated



## What is Glioblastoma?

Glioblastoma, also called glioblastoma multiforme, or GBM, is a type of primary brain cancer. GBM is the most common type of primary brain tumor in adults.

Because GBM can be hard to reach, surgery may not be able to remove the entire tumor. GBM also grows fast and can spread quickly.

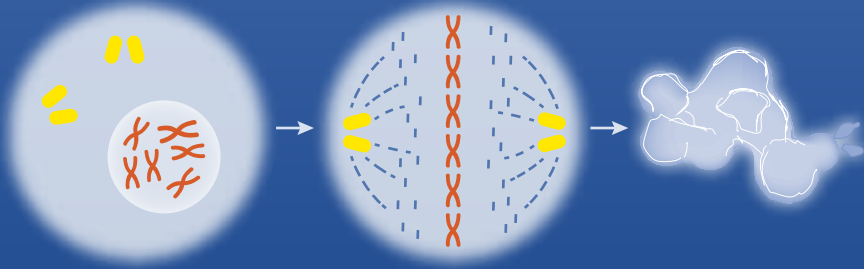
## How is GBM Treated?

Treatment can include surgery, radiotherapy, chemotherapy or TTFields.

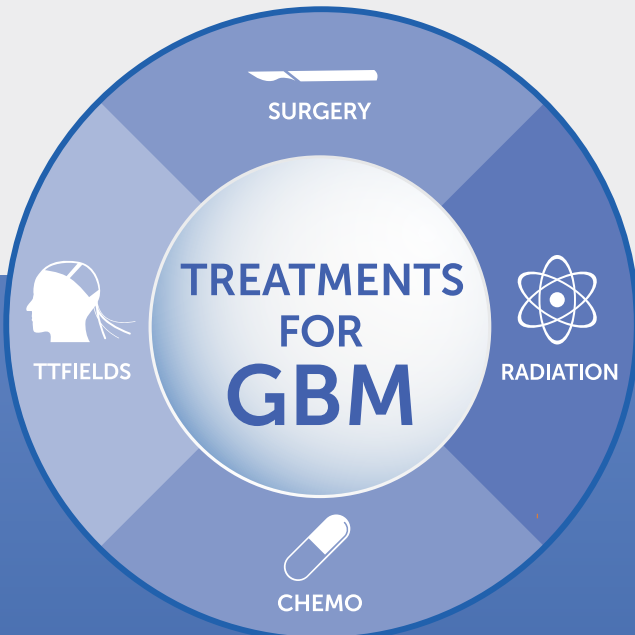
## Tumor Treating Fields (TTFields) Delivered by Optune®

Optune is a wearable and portable FDA-approved device for the treatment of GBM. Optune creates low-intensity alternating electric fields – called Tumor Treating Fields (TTFields) – which help slow or stop glioblastoma cancer cells from dividing and may also cause some of them to die.

It is a portable therapy that may allow patients to go about their daily activities while receiving treatment. However, users should not wet the device or transducer arrays.



TTFields work when cancer cells are dividing and do not typically disrupt healthy resting cells.



TTFields are delivered to the brain through transducer arrays placed on the scalp.

## Introducing the second generation Optune System: Smaller. Lighter. Designed for everyday life.

Original Optune System



**Easy-grip texture** allows for better handling

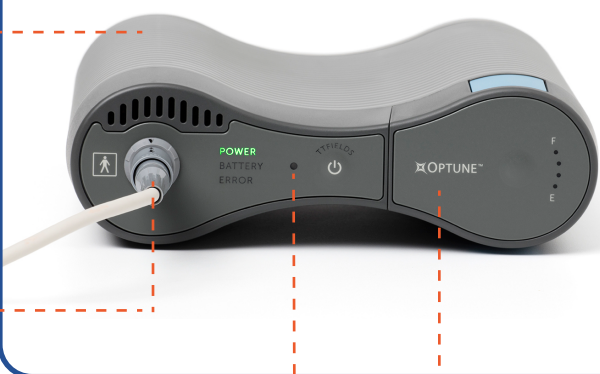
**Light-detecting sensor** auto-dims the device and charger in the dark

**Battery indicator display** alerts user when it's time to change the battery

New **"No-Stop Swap"** enables patients to swap batteries or power source without disrupting delivery of TTFields

### Half the weight

The second generation Optune system is **smaller and lighter** for enhanced carrying comfort



**"Easy access" sleeve bag**  
Openings conveniently located at the top and bottom make it **easy to reach device controls**



Actor Portrayal

## Indications For Use

Optune is intended as a treatment for adult patients (22 years of age or older) with histologically-confirmed glioblastoma multiforme (GBM). Optune in combination with temozolomide is indicated for the treatment of adult patients with newly diagnosed, supratentorial glioblastoma following maximal debulking surgery, if possible, and completion of radiation therapy. For the treatment of recurrent GBM, Optune is indicated following histologically- or radiologically-confirmed recurrence in the supra-tentorial region of the brain after receiving chemotherapy. The device is intended to be used as a monotherapy, and is intended as an alternative to standard medical therapy for GBM after surgical and radiation options have been exhausted.

## Important Safety Information

### Contraindications

Do not use Optune if you have an active implanted medical device, a skull defect (such as, missing bone with no replacement), or bullet fragments. Use of Optune together with implanted electronic devices has not been tested and may theoretically lead to malfunctioning of the implanted device. Use of Optune together with skull defects or bullet fragments has not been tested and may possibly lead to tissue damage or render Optune ineffective.

Do not use Optune if you are known to be sensitive to conductive hydrogels. In this case, skin contact with the gel used with Optune may commonly cause increased redness and itching, and rarely may even lead to severe allergic reactions such as shock and respiratory failure.

### Warnings and Precautions

Use Optune only after receiving training from qualified personnel, such as your doctor, a nurse, or other medical personnel who have completed a training course given by Novocure (the device manufacturer).

Do not use Optune if you are pregnant, you think you might be pregnant or are trying to get pregnant. It is not known if Optune is safe or effective in these populations.

The most common (≥10%) adverse events involving Optune in combination with temozolomide were low blood platelet count, nausea, constipation, vomiting, fatigue, scalp irritation from device use, headache, convulsions, and depression.

The most common (≥10%) adverse events seen when using Optune alone were scalp irritation from device use and headache.

The following adverse reactions were considered related to Optune when using the device alone: scalp irritation from device use, headache, malaise, muscle twitching, fall and skin ulcer.

All servicing procedures must be performed by qualified and trained personnel.

Do not use any parts that do not come with the Optune Treatment Kit, or that were not sent to you by the device manufacturer or given to you by your doctor.

Do not wet the device or transducer arrays.

If you have an underlying serious skin condition on the scalp, discuss with your doctor whether this may prevent or temporarily interfere with Optune treatment.

Please visit [Optune.com/Safety](http://Optune.com/Safety) for Optune Instructions For Use (IFU) for complete information regarding the device's indications, contraindications, warnings, and precautions.

## Sources

1. National Cancer Institute. "What You Need To Know About Brain Tumors." Published February 2009. NIH Publication No. 09-1558. Available at: <http://www.cancer.gov/publications/patient-education/brain.pdf>.
2. Ostrom QT, Gittleman H et al. CBTRUS Statistical Report: Primary Brain and Central Nervous System Tumors Diagnosed in the United States in 2008-2012. Neuro-Oncology 17:iv1-iv62, 2015. Available at [http://neuro-oncology.oxfordjournals.org/content/17/suppl\\_4/iv1.full.pdf+html](http://neuro-oncology.oxfordjournals.org/content/17/suppl_4/iv1.full.pdf+html).
3. National Comprehensive Cancer Network. Clinical practice guidelines in oncology: central nervous system cancers, version 1.2015. [https://www.nccn.org/professionals/physician\\_gls/pdf/cns.pdf](https://www.nccn.org/professionals/physician_gls/pdf/cns.pdf).
4. Optune Instructions For Use. Novocure 2016.

