



International reference site for CyberKnife® & ZAP-X®



**Medical experience since 2005  
with more than 10,000 patients treated.**

## Welcome

to the European Radiosurgery Center Munich



Outpatient and  
without surgery



High quality  
of life



Experienced  
specialists



Highly  
networked



First-class  
service



Most advanced  
technologies

## Precise tumor therapies

for over 20 years

For more than two decades, we have relied on state-of-the-art radiosurgery - innovative precision technologies for the targeted and gentle treatment of various tumors: benign neoplasms as well as serious cancers.

Every year, more than 1,000 patients place their trust in the European Radiosurgery Center Munich (ERCM) on their way to individually tailored treatment.

### Our goal:

**Your best possible treatment and a lasting improvement in your quality of life.**

### Scientifically sound

Based on our scientifically sound expertise, we achieve excellent treatment results that have been proven by numerous studies and publications. This makes us one of the leading robot-guided radiosurgery centers in the world. Whether it's acoustic neuromas, meningiomas, prostate cancer or other selected indications - our center is the leading address for innovative radiosurgery. Discover the benefits of our treatments and let us work together on the path to your health.



"With full personal commitment and all our professional expertise, we at the ERCM are committed to making the best possible treatment method available to all patients."

**Prof. Dr. med. Alexander Muačević**  
Director



Germany's most advanced  
center for robot-guided radiosurgery.







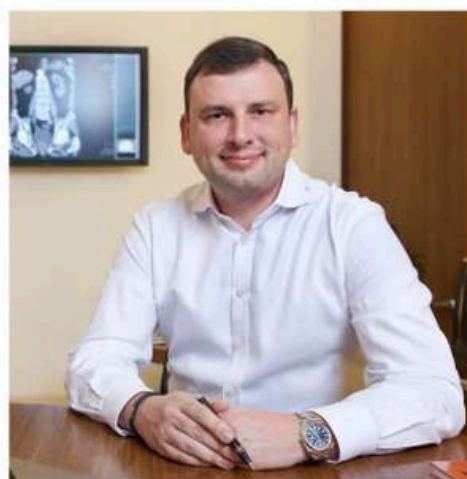
**Dr. med. Markus Kufeld**  
Neurosurgeon - Radiosurgeon



**Dr. med. Antonio Santacrose**  
Neurosurgeon - Radiation oncologist



**Priv.-Doz. Dr. med. Annabel Graser**  
Urologist - Specialist in uro-oncology



**Dr. med. Michael Fedorov**  
Specialist in radiosurgery



**Dr. med. univ. Christoph Arnold**  
Radiation oncologist



**PD Dr. techn. Christoph Fürweger**  
Chief Medical Physicist



**Prof. Dr. med. Alexander Muičević**  
Director

## Health in the best hands

### Your indication deserves the best specialists

Our patients can rely on being treated only by internationally recognized radiosurgery experts - with over 20 years of experience and more than 1,000 patients per year.

At the ERCM, patients can expect the highest possible treatment success thanks to a broad treatment spectrum, unique special techniques and specific therapies for certain indications. Treatments are prompt, short and gentle. They also have few side effects and do not require inpatient hospitalization or rehabilitation. You will be looked after by a first-class interdisciplinary team in all areas.



Experienced  
specialists



At the ERCM, we focus on innovative  
precision medicine:  
Discover how pathologies can be treated  
effectively, gently and often just in one  
treatment session.







## CyberKnife technology

High-tech. Gentle. Effective.

Radiosurgical treatment with CyberKnife technology is gentle on patients and is performed on an outpatient basis. It is possible to divide the typically single dose into 2–5 smaller doses in order to safely eliminate lesions in very sensitive areas of the body while maintaining quality of life. Patients can usually resume their normal activities and work shortly after treatment.

### Each therapy is tailored to your individual needs

Our patients expect the best possible therapy for their condition. We achieve this by only performing treatments that make sense and where the technologies we use enable above-average treatment success. At ERCM, individual therapy options are always discussed and decided upon together with you and a multidisciplinary team. Before, during, and after treatment, you will be accompanied by our first-class team of experts.

### 3 cutting-edge technologies combined:



#### Precision robotics

A particularly light and compact linear accelerator on the robot arm optimally reaches all areas of the body.



#### Digital image localization system

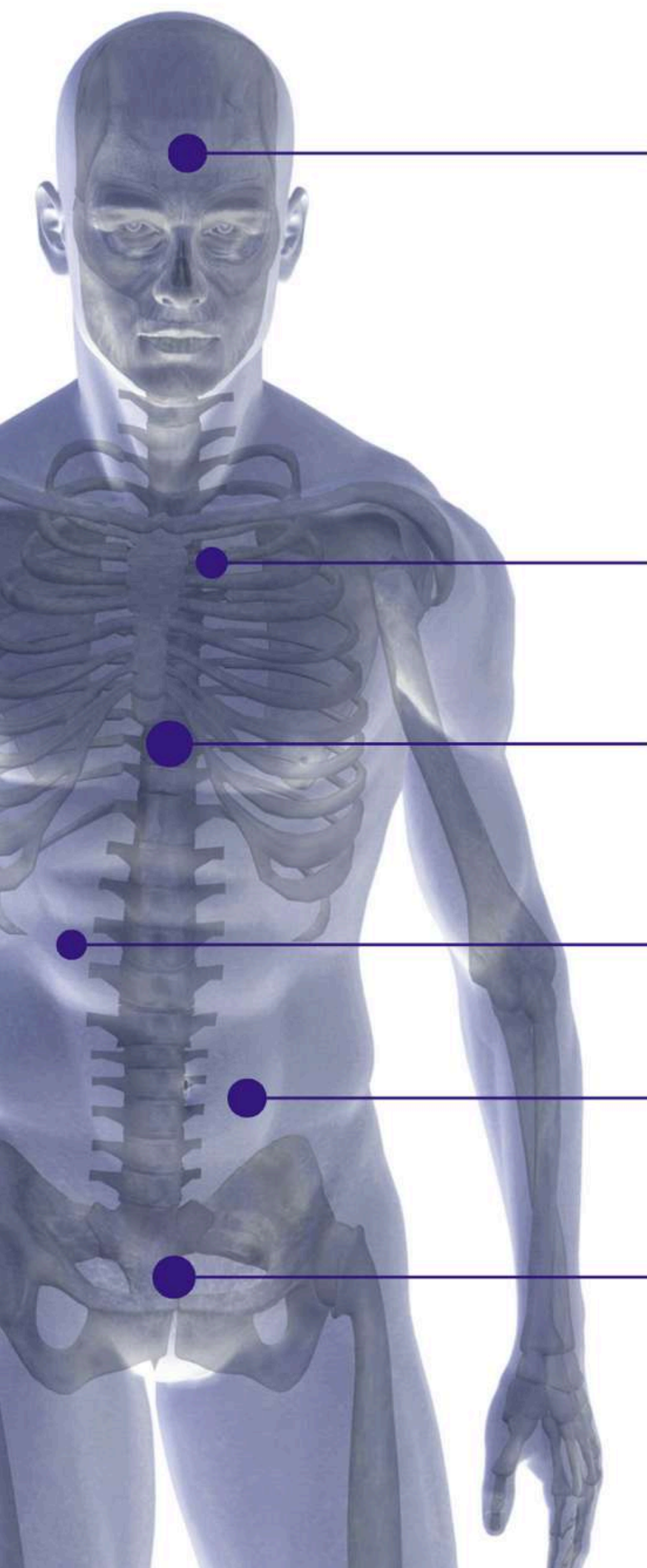
This computer-controlled technology continuously locates the tumor and automatically compensates for position changes and minor patient movements during treatment.



#### Respiratory compensation

The third technical innovation is the ability to follow tumors that move with breathing with pinpoint accuracy during treatment. For example, lung, liver, and kidney tumors can often be eliminated in just one session.





## Brain

Uveal melanomas  
Acoustic neuromas / vestibular schwannomas  
Meningiomas  
Arteriovenous malformations / AVM  
Brain metastases  
Trigeminal neuralgia  
Pituitary adenomas

## Lungs

Bronchial carcinomas (stage I/II)  
Lung metastases

## Spine

Spinal metastases  
Spinal neurinomas  
Spinal meningiomas  
Bone metastases

## Liver

Primary hepatocellular carcinoma  
Liver metastases

## Kidney

Renal cell carcinoma  
Adrenal tumors

## Prostate

Prostate carcinoma  
Prostate carcinoma - Recurrences  
Lymph node metastases



## Versatile treatment

Suitable for numerous treatment indications

Every tumor requires an individual approach—whether it is a benign or a malignant tumor. Radio-surgical treatment with innovative CyberKnife or ZAP-X technology offers an effective, gentle alternative to surgery or conventional radiation therapy for certain diseases in selected situations.

All tumor treatments we perform at ERCM always combine the highest medical precision with maximum patient comfort.

Please do not hesitate to contact us if you have any questions.



While **CyberKnife** technology can be used for a variety of benign and malignant tumors throughout the body,



we use **ZAP-X** technology specifically to treat diseases in the head and neck area.





## ZAP-X technology

### Radiosurgery at the cutting edge

ZAP-X technology is a pioneering revolution developed for the optimized treatment of certain brain tumors and diseases in the head and neck area. With its unique gyroscopic freedom of movement, the ZAP-X system opens up new avenues in modern radiosurgery. It combines self-shielding technology with very high precision, representing the next step in the development of non-invasive tumor treatment.



"The technical precision and safety of CyberKnife and ZAP-X are checked daily by specialized medical physicists."

**PD Dr. techn. Christoph Fürweger**  
Chief Medical Physicist



The ERCM is  
**one of the most  
experienced  
radiosurgery  
facilities in the  
world**  
and a pioneer in  
ZAP-X therapy.



With modern radiosurgery, we offer highly effective and gentle tumor treatment at the highest international scientific level.







## Your advantages

Benefit from the advantages of modern radiosurgery

### Short treatment duration

Often, only a single outpatient session (approx. 30 minutes) is required. If necessary, the treatment can be divided into up to 5 sessions.

### Pain-free

You lie quietly on a couch while the precision robot moves silently around you.

### No anesthesia

You can talk to your medical team or relatives at any time, or even take a short break from treatment.

### No surgical risks

Our non-invasive therapy eliminates the stress and complications of surgery.

### No or only minor side effects

In rare cases where side effects occur, most patients recover very quickly after treatment.

### No hospital stay

Thanks to the high level of treatment comfort, you can go home immediately after your outpatient therapy and return to your normal daily routine.



"With modern radiosurgery, we work in a highly patient-centered and efficient manner."

**Prof. Dr. med. Alexander Mucčević**  
Director

## Highly networked

Science and research for your health

The ERCM maintains close partnerships and collaborations with scientific institutions and organizations around the world. This commitment benefits our patients.

For example, close cooperation and the associated scientific exchange with the University of Munich Medical Center (LMU) promotes the further development of radiosurgery.

## Our cooperation partners

### LMU

University Hospital Munich

### Stanford University

### The Radiosurgery Society (RSS)

### International society of radiosurgery (ISRS)

### TUHH Technische

Technical University of Hamburg

### Charité

University Medicine Berlin

### University of Lübeck



For us, the best possible  
treatment always includes  
first-class service  
in a pleasant and personal  
atmosphere.







## Treatment process

5 steps  
for your quality of life

### Initial contact

#### Prompt consultation

Our quick and easy introduction for you: In the first step, we carefully examine whether a radiosurgical treatment is suitable in your case. To do this, we analyze existing documents and available imaging material (e.g., CT, MRI, PET-CT findings). If CyberKnife or ZAP-X therapy is an option for you, we will arrange a personal consultation at short notice.

### Preliminary consultation

#### Individual informed consent

A comprehensive consultation with you and our interdisciplinary treatment team forms the basis for the further course of treatment. Together, we discuss your diagnosis and possible therapy options step by step and clarify any open questions. We place great importance on transparency so that you know exactly what to expect.

### Treatment plan

#### Tailored therapy

Precise preparation of the therapy, taking into account your personal needs and wishes, is an essential prerequisite for the success of the treatment. Based on your individual situation and with the help of state-of-the-art technologies (e.g., planning CT, MRI), our experts will create the optimal treatment plan for you.

### Pain-free treatment

#### Precision meets comfort

Radiosurgical treatment with the precision robot is pain-free and non-invasive. You rest in a relaxed atmosphere on the treatment table in your normal street clothes while the highly specialized therapy unit rotates around you.

### Follow-up care

#### Long-term support

After your treatment, you will have a detailed final consultation. You will also receive advice on aftercare and remain in close contact with our team. Your well-being and quality of life remain our focus – even after your treatment is complete.



The procedures at  
our center are  
**tailored to your  
needs.**

At the ERCM,  
you can expect  
**individual care**  
that provides  
security – top-quality  
medical care and  
human warmth.



"Do you have questions about the  
treatment process?"

Make a personal consultation  
appointment with us today."

**Silvia Zimmermann**  
Front Office





ERCM

## PATIENT EXPERIENCE

### CYBERKNIFE TREATMENT FOR PROSTATE CANCER

## What our patients say

### Real stories and experiences that inspire courage

Many are enthusiastic about our comprehensive information on individual treatment options, our personal therapy support, and the empathy and appreciation practiced at ERCM.

To this day, patients enjoy a high quality of life and have been symptom-free for years.

What else they like about us and how our patients feel after their treatment:



"The CyberKnife treatment didn't hurt at all, and only one session was necessary, which was over in 25 minutes. The "radiation robot" saved my eye. It's nothing short of a miracle what modern technology can do in medicine."

**Karl-Heinz E.**  
Diagnosis: Uveal melanoma  
CyberKnife treatment in 2011



"The treatment of my prostate cancer with the CyberKnife method has maintained my quality of life. At the time, my greatest worries and fears were caused by the thought of suffering serious and stressful complications from tumor treatment. But immediately after CyberKnife therapy, I was able to resume my normal daily routine. Today, several years after treatment, my PSA levels are well below 1 ng/ml and I am in good physical condition."

**Ronald H.**  
Diagnosis: Prostate cancer  
CyberKnife treatment in 2012



"My brain is my personality! So I wanted a safe and effective treatment without the side effects that would have been possible with surgery. I was even able to leave the CyberKnife Center immediately after my treatment and enjoy sightseeing in Munich."

**Natasha H. McD.**  
Diagnosis: Brain tumor (meningioma)  
CyberKnife treatment in 2015



"All the other doctors I consulted refused to treat me. The doctors at ERCM gave me new hope. My symptoms subsided within the first 3 months after treatment."

**Iden J.**  
Diagnosis: Arteriovenous malformation (AVM)  
CyberKnife treatment in 2005



"CyberKnife treatment enabled me to resume my hobbies of mountain biking and climbing in no time. The treatment was completely painless, and I was able to return to my home in Austria afterwards. I am glad that I was able to avoid major surgery and a long recovery period. Many years have passed since then, and I am still doing well."

**Johannes W.**  
Diagnosis: Acoustic neuroma  
CyberKnife treatment in 2006





## Questions and answers

### Everything you need to know at a glance

#### What is modern radiosurgery?

Modern radiosurgery is a highly precise, non-invasive treatment method for benign and malignant tumors. It uses innovative image-guided precision robotics—such as CyberKnife and ZAP-X therapy—to focus photons with high application accuracy (less than 1 mm) extremely precisely on the pathologic tissue, thereby destroying the tumor.

#### Is radiosurgery the same as radiation therapy?

Highly precise radiosurgical treatment should not be confused with conventional radiation therapy. Unlike conventional radiation therapy, which uses low doses of radiation over several sessions, CyberKnife and ZAP-X therapy delivers individually tailored high doses of radiation with extreme precision to the defined target tissue. The therapy can be clearly limited to the tumor, sparing surrounding healthy tissue as much as possible. This precision is not possible with conventional radiation therapy, which means that additional stress on healthy tissue is unavoidable with conventional radiation.

#### How does radiosurgical treatment work?

Radiosurgical therapy is based on a combination of digital imaging and precision robotics. During treatment, your body movements are detected by an intelligent image localization system. Positions are continuously recalculated and compensated for by the robot. In the case of tumors that move with breathing, for example, a 3D camera also records external breathing in order to dynamically adjust the treatment dose to the target – the robot “breathes” along with you.

#### How safe is radiosurgery?

Radiosurgical treatments with CyberKnife and ZAP-X therapy are safe and particularly gentle procedures overall. The treatment dose is adjusted to the target volume with submillimeter precision. This means that the treatment always hits the tumor exactly – the surrounding healthy tissue is spared as much as possible.

#### How successful is CyberKnife therapy?

The requirements for CyberKnife therapy are clearly defined. The target tissue to be treated must not exceed a certain size and must be locally confined. If the individual situation is suitable for CyberKnife therapy, the success rates are very high in most cases, at 90% or more. The decisive factor here is the correct indication by a specialized and competent team of physicians.

#### What is the difference between CyberKnife therapy and ZAP-X therapy?

In 2021, we at the European Radiosurgery Center Munich were one of the first providers worldwide to put the innovative ZAP-X robotic treatment system into operation. The pioneering ZAP-X therapy was developed for the optimized high-energy treatment of certain brain tumors and diseases in the head and neck area.

Cyberknife therapy, on the other hand, can be performed on regions throughout the entire body.



"Do you have any questions?"

We are here for you!

You can reach us by phone, email, or via our contact form."

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www.erc-munich.com

**Nesrin Elibol**  
Front Office





AVAILABLE ON







## Discover something new: The ERCM Medicine Podcast

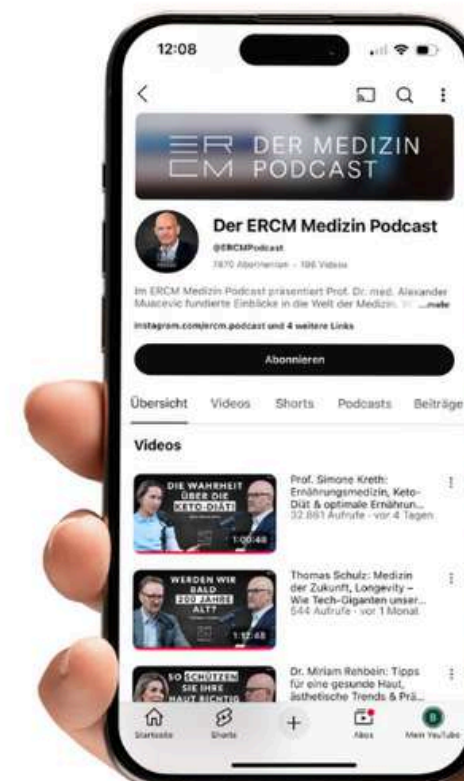
In our podcast, we translate new findings and developments in medicine into clear answers and tips you can use right away in your everyday life. In each episode, experts share their valuable knowledge and provide exciting insights in conversation with ERCM Director Prof. Alexander Mucaveć. From scientific research to everyday health issues to current trends such as digitalization in healthcare.

There is always something new and exciting to discover here.

This podcast is brought to you by the European Radiosurgery Center Munich, the most advanced center for robot-guided precision treatments.

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-  [tiktok.com/@ercm.podcast](https://tiktok.com/@ercm.podcast)







**Our opening hours:**  
**We are here for you**

Mon. to Thu. 8:00 AM – 6:00 PM  
Friday 8:00 AM – 4:00 PM




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