# *Physician* CONNECT

## Lakeland Center for Wound Care & Hyperbaric Medicine

Lakeland Health provides specialized care to enhance the healing process for patients suffering from severe wounds. Each patient is provided with a treatment plan tailored to their individual needs, which may include specialized wound treatments, medications, nutritional support, exercise, or physical therapy.

Services provided include:

- Advanced wound dressings
- Vacuum-assisted closure, which involves a special dressing and application of negative pressure
- Bioengineered tissue
- Debridement (tissue removal)
- Hyperbaric oxygen therapy
- Wraps to decrease lower leg swelling and off-loading

*The Lakeland Center for Wound Care and Hyperbaric Medicine was the fifth health system in Michigan, and one of less than 250 in the nation, to become fully accredited by the Undersea and Hyperbaric Medical Society (UHMS). In order to receive UHMS accreditation, facilities must successfully complete a rigorous assessment of staffing and training; equipment installation, operation, and maintenance; facility and patient safety; and standards of care.*

> *"We offer advanced modalities for wounds that physicians might find very difficult to treat in their offices. We specialize in acute injuries that may be due to a trauma or burn, as well as chronic wounds, such as diabetic ulcers that patients have had for months and haven't healed."*
>
> **– Julian Lewiecki**
> *Program Manager, Lakeland Center for Wound Care & Hyperbaric Medicine*

Diabetic ulcers are the most commonly seen wound at the center. According to the American Podiatric Medical Association, diabetic foot ulcers occur in approximately 15% of patients with diabetes, and diabetes is the leading cause of non-traumatic lower extremity amputations in the United States.

### Hyperbaric Oxygen Therapy

As part of an individualized care plan, a patient may benefit from the use of hyperbaric oxygen therapy at Lakeland. The Undersea and Hyperbaric Medical Society (UHMS) recommends hyperbaric medicine for the following 14 indications, which are typically approved for reimbursement by Medicare and private insurance.

1. Acute thermal burn injury
2. Air or gas embolism
3. Arterial insufficiencies
4. Carbon monoxide poisoning
5. Clostridial myositis and myonecrosis (gas gangrene)
6. Compromised grafts and flaps
7. Crush Injury, compartment syndrome and other acute traumatic ischemias
8. Decompression sickness
9. Delayed radiation injury (soft tissue and bony necrosis)
10. Idiopathic sudden sensorineural hearing loss
11. Intracranial abscess
12. Necrotizing soft tissue infections
13. Osteomyelitis (refractory)
14. Severe anemia

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### Hyperbaric Oxygen Therapy *(continued)*

The Lakeland Center for Wound Care & Hyperbaric Medicine has two hyperbaric chambers, each capable of treating four patients per day, for a total capacity of eight patients per day. Through the Sigma 34 Monoplace Hyperbaric System from Perry Baromedical, the patient receives pure oxygen in quantities 10-15 times greater than normal atmospheric levels while lying in a clear pressurized chamber 36" in diameter. The number of treatments varies depending on the patient's condition and how tissue responds.

Hyperbaric oxygen therapy exposes a patient's body to 100% oxygen in a pressurized environment, helping to heal damaged tissue by:

- Promoting the creation of new blood vessels
- Saturating the bloodstream with 100% rich oxygen
- Enhancing the body's ability to fight infection and kill bacteria
- Reducing swelling and inflammation
- Improving the rate of healing

## Case Studies

### Case Study 1

**Diagnosis:** Young patient presented a crush injury of his left foot, gangrene of toes, and fractures on the third and fourth digits. Amputation was a possibility.

**Treatment:** 15 hyperbaric oxygen therapy treatments

**Outcome:** The wound was successfully closed, and the foot was saved, with no edema or signs of infection. The patient was counseled about skin and wound care and reported that he was released to work.

### Case Study 2

**Diagnosis:** Older patient with diabetes presented with two foot ulcers. On the right foot, ulcer measured 5 cm by 5 cm by 1.5 cm; ulcer on the left foot measured 6 cm x 5 cm x 3 cm. The wound beds were 90% spongy red tissue and 10% thin yellow slough, with moderate exudate and mild odor.

**Treatment:** Debridements, IV antibiotics, specialized wound dressings, wound VAC, off-loading, education, Apligraf®.

**Outcome:** The wounds successfully closed in three months.

## Meet Our Providers

The providers at the Lakeland Center for Wound Care & Hyperbaric Medicine have specialized training in this type of medicine, and physicians are board-certified and fellowship trained in Undersea & Hyperbaric Medicine.

**Jose Gomez, MD**
*Wound Care Specialist*

**Laurence Habenicht, MD**
*Wound Care and General Surgery*

For more information about hyperbaric oxygen therapy, contact **Julian Lewiecki, Program Manager**, at (269) 683-8528 or jlewiecki@lakelandhealth.org

To make an appointment, contact Lakeland Center for Wound Care & Hyperbaric Medicine at (269) 683-8070

*"The most rewarding part of my job is seeing the improvement of the wounds. It's a great satisfaction to help patients who might have come to us as a last resort and prevent an amputation."*

– Jose Gomez, MD

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