

# *SurgiTel*<sup>®</sup>



Vision and Ergonomics *at* Work



*SurgiTel*



**“SurgiTel® was founded to help clinicians (surgeons, dentists, hygienists, and veterinarians) practice without posture-related pain. I am most proud that we have helped many clinicians be able to take care of their patients without pain in their neck, back, and upper shoulders which they had for many years prior to using SurgiTel ergonomic loupes. Many clinicians have told me that SurgiTel ergonomic loupes saved their careers.”**

**— Dr. B. Jin Chang, Founder and Chief Scientist**



## TAKE THE STEPS TO PRACTICE PAIN-FREE

Practicing dentistry can take a toll on your body and even your eyes. If you're not considering ergonomics when you purchase products, such as loupes, you may wind up experiencing back, neck, and shoulder pain that only worsens over time. While headlights have become an essential tool for clinicians, the cool LEDs providing that bright illumination aren't doing your eyes any favors, exposing you to blue light that could eventually damage your vision.

SurgiTel loupes and headlights are designed to help you work safely and comfortably, protecting your body and eye health so you can have a long, happy career.

### The SurgiTel® Advantage

SurgiTel was founded on the desire to help clinicians practice comfortably and safely. Not only do we offer products backed by science and research, we are committed to educating clinical professionals about how to practice pain-free through free evaluative services.



Schedule A Free Evaluation

**Before**



**After**

**“**I regret going almost 10 years like I did. Unfortunately, those 10 years did some irreparable damage to my skeletal system, however my neck pain immediately went away and I would say I have a 98% improvement.”  
— Dr. Brian Lord, DDS

## ONE SOURCE FOR ALL LOUPE OPTIONS

Through-The-Lens (TTL)



Front-Lens-Mounted (FLM)



ErgoDeflection™



Headband Mounted



## TTL (THROUGH-THE-LENS) LOUPES

SurgiTel ergonomic TTL loupes are custom built to your personalized specifications. The main advantage of TTL loupes is that they don't need to be adjusted. And since the oculars go through the lens, they sit closer to your eyes to provide a wider field of view from a keyhole effect.



[Learn More](#)



### 1 Pantoscopic Tilt

Pantoscopic tilt of frame and/or lenses help give the oculars a steeper declination angle and can eliminate gaps between the face and the bottom edge of the lenses to give better eye protection.

### 2 Maximum Declination Angle

SurgiTel's patented suspended mounting technology and proprietary production techniques can achieve any declination angle needed to have you working comfortably with an ergonomic minimal neck tilt of less than 20 degrees.

### 3 Ergo Fit Nose Pads

SurgiTel's patented Ergo Fit Nose Pad system easily conforms to satisfy various nose shapes and were also developed to support loupe weight and create optimal space between oculars and eyes.

### 4 Patented Suspended Technology

SurgiTel's patented suspended mounting technology allows for a steeper declination angle while keeping the magnified object in a coaxial alignment with your peripheral line of sight.

## FLM (FRONT-LENS-MOUNTED) LOUPES

SurgiTel FLM loupes were developed to be sturdy yet lightweight with various adjustment points to give you optimal alignment and ergonomics. The rack arms are able to hold both Galilean and prism ocular magnifications up to 10.0x. An added benefit, FLM loupe maintenance costs is low, frame Rx carrier lenses can be done at your local optical shop, and repairs or replacement parts can be done quickly.



### 1 Rack Arm Assembly

Patented rack arm assembly includes locking screw, ocular mounting arm and dip-divergence adjustment screws.

### 2 P.D. (Pupillary Distance) Adjustment Knob

Easily adjust the pupillary distance to change the convergence point.

### 3 Vertical Slide

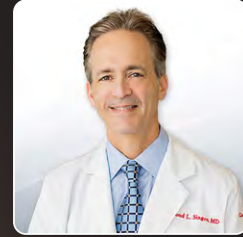
Vertically align the ocular to eyes to achieve the best images.

### 4 Prism Oculars

Taking the advances of previous generation prism loupes and concentrating them into a patented optimal compact design and lighter weight ocular, these loupes provide a wider field-of-view and longer depth-of-field.

### 5 Working Distance Caps

Only SurgiTel offers patented working distance caps that help you save on long term maintenance costs and downtime from needing Rx changes. Working distance caps come with all prism loupes.



“All surgeons eventually develop neck and back pain. While not 100% is due to the loupes, the fact is that 100% is due to the long hours, stress, and posture. To the extent that the SurgiTel loupes correct so many issues (weight, posture, lighting), the proper loupes setup can make a huge difference to the majority of surgeons. In my case, it took away 90% of my back issues and allowed me to have a long career, performing over 200 heart procedures per year...”

— **Dr. Raymond Singer, MD, MMM, CPE, FACS, FACC, FCCP**



## NEXT-GENERATION ERGODEFLECTION™ LOUPES

### 1 Patent Pending Deflection Prism

The deflection angle of SurgiTel's patent pending ErgoDeflection™ loupes are designed to give you a more tailored viewing angle for optimal neck posture and reach distance. Note that deflection loupes should not cause you to lean back in a non ergonomic posture.

### 2 Highest Quality Materials

SurgiTel's highest grade optical glass with multi-layer anti-reflective coatings, craftsmanship, and compact prism design deliver sharp clarity, wide field-of-view, and depth-of-field.

### 3 Pantoscopic Tilt and Direct Vision

Ergonomic pantoscopic tilt of the frame and lenses help eliminate gaps between the face and bottom edge of the lenses to give better eye protection. It also gives you a wide area of direct viewing to your work area.

### 4 Working Distance Caps

SurgiTel's patented interchangeable working distance caps can help you adjust the working distance precisely and also allow you to easily update your reading Rx.

### 5 Titanium Frame

SurgiTel's pure titanium construction frames are lightweight yet sturdy enough to support laser aligned optics without sacrificing look or feel.



[Learn More](#)



## DESIGN AND BUILD THE ULTIMATE LOUPES

Our goal as a company is to design, engineer, and build the ultimate loupes.

Basic requirements include:

### Vision

- Minimum magnification requirement
- Wide field-of-view
- Custom working distances for each procedure
- Precision alignment

### Ergonomics

- Safe head tilt angle (neck posture)
- Ergonomic declination of eyes
- Custom nose pads

### Other

- Working distance changes
- Low maintenance costs
- Short learning time
- Highest grade optical glass and materials
- Multi-layer anti-reflective coatings





Scan to Learn More  
About Loupes






# LOUPE OPTIONS



## Galilean

	<b>2.5x</b> MICRO	Field Size: 12.0cm Field Depth: 32.0cm
	<b>3.0x</b> MICRO	Field Size: 10.5cm Field Depth: 18.0cm
	<b>2.5x</b>	Field Size: 13.2cm Field Depth: 20.0cm
	<b>3.0x</b>	Field Size: 7.6cm Field Depth: 15.0cm

## UltiView™ Lite

	<b>3.0x</b>	Field Size: 11.2cm Field Depth: 14.4cm
	<b>3.5x</b>	Field Size: 10.5cm Field Depth: 12.0cm
	<b>4.5x</b>	Field Size: 9.4cm Field Depth: 8.9cm

## UltiView™

## NEW! ErgoDeflection™

	<b>3.5x</b>	Field Size: 10.5cm Field Depth: 12.0cm
	<b>4.5x</b>	Field Size: 9.4cm Field Depth: 7.8cm
	<b>5.5x</b>	
	<b>6.5x</b>	

## UltiView™ Pro

	<b>3.5x</b>	Field Size: 11.8cm Field Depth: 11.4cm		<b>5.5x</b>	Field Size: 8.0cm Field Depth: 5.2cm		<b>8.0x</b>	Field Size: 6.0cm Field Depth: 2.2cm
	<b>4.5x</b>	Field Size: 10.1cm Field Depth: 8.3cm		<b>6.5x</b>	Field Size: 7.0cm Field Depth: 2.3cm		<b>10.0x</b>	Field Size: 5.0cm Field Depth: 2.1cm

Field size and depth measured at an 18" working distance. Achievable depth-of-field is dependent on the age of your eyes.



**“**I have acquired four pairs of SurgiTel loupes over the years of practicing (2.0x, 3.0x, 3.5x, and 6.5x) and continue to be comfortable. I have lent pairs out to friends who have been having terrible neck pain. Within days of wearing SurgiTel loupes, their neck pain diminished. They are lightweight, high quality, and deeply declinated to comfortably wear all day, procedure after procedure. I would never even consider changing companies.”

**— Dr. Nichole Anderson, DDS, RDH**

## FRAME OPTIONS

### Frames Designed for Loupes

Not all frames are ideal for loupes. Our frames are designed and selected to meet certain requirements to deliver ergonomics, alignment, and safety.

#### 1 Stable and Lightweight

Sturdy frames to keep loupe alignment from shifting especially needed for higher magnification oculars. Lightweight material for less pressure on your nose.

#### 2 Ergo Fit Nose Pads

Adjustable Ergo Fit Nose Pad system for height and gap adjustments of the loupes to your eyes and adjustable shape for all nose types.

#### 3 3-Point Fit

Wrap around design for added stability and comfort.

#### 4 Pantoscopic Tilt

Pantoscopic tilt of frame and lens helps give the oculars a steeper declination angle and helps eliminate gaps between the face and the bottom edge of the lens to give better eye protection.

#### 5 Mounting Block

Dovetail mounting for LED headlight and SurgiCam HD video camera.

#### 6 Carrier Lens Rx

Rx available with some frames.



**Oakley Frames**



Scan to View All Frame Options



**SurgiTel Frames**



“I commend SurgiTel for recognizing the potential retinal hazard from using very bright ‘cool white light’ LEDs. They have also taken steps to reduce the most dangerous blue light emission at 445 nm from the LEDs in their headlamps. I recommend that clinicians ask the manufacturers of LED headlamps and LED operatory lights to provide the spectral emission from their light source, not just the brightness or intensity of the light.”

— **Dr. Richard Price, BDS, DDS, MS,  
FDS RCS, FRCD, PhD**



## AVOIDING THE POTENTIAL BLUE LIGHT HAZARD

Blue light is not healthy, yet many clinicians are using blue-tinted LEDs, even though they were advertised as true color. Third party evaluations have determined SurgiTel LEDs have the safest color temperate starting at 3,000K (Kelvin) while other brands range from 5,400K to 10,000K. Other benefits of eye safe, true colored dental lights and surgical lights include minimized eye-strain and best color accuracy.

### The Stages of AMD

#### Normal Vision



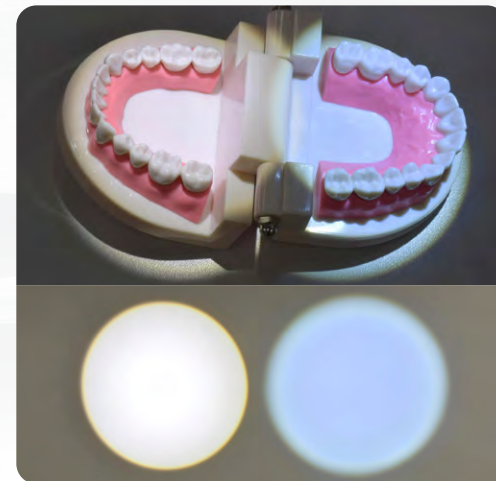
#### Early Signs



#### Intermediate



#### Advanced



Example comparison of SurgiTel Neutral (left) vs competitor (right).

[Scan to View All LED Comparisons](#)



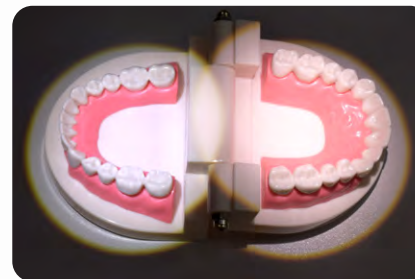
## How to Evaluate Your Current LED Lights?

It is very difficult to estimate the degree of coolness of the LED beam you are using. The best way is to compare the beam of current LED headlight with a true color neutral LED headlight which has a balanced color spectrum and is safest to your eyes.

If you contact us, we can help you evaluate your current LED headlights by comparing them with our true color neutral LED headlights.



SurgiTel Neutral



SurgiTel Warm

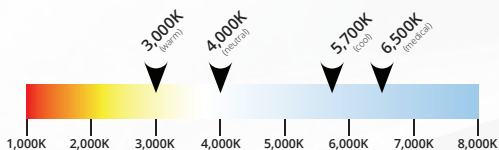


Photo Courtesy of Confidential MKE



## LED HEADLIGHTS

SurgiTel's patented optics create a unique achromatic beam that creates a clear, even circle of light with no hot spots or fading edges. Different procedures require different light to see the unique anatomical features. That is why SurgiTel offers four different light temperatures (Warm, Neutral, Cool, and Cool Medical).



### Eclipse® CS Touch-Free Micro and Mini LED



### Odyssey Micro and Mini LED



### NEW! Surgical Mini LED



### Wireless Air Micro and Mini LED



### NEW! Surgical Headband LED 2.0



Scan to View All Light Options, Benefits, and Specifications



## COMPANION PRODUCTS

Companion products work with SurgiTel loupes and lights to provide a safe and comfortable working experience.

### Posture-Safe Seating

RGP stools work in tandem with SurgiTel loupes to promote superior working posture.

- Prevents soreness and straining.
- Protects your lower back from long-term damage.
- Adjustable to fit you and your work.



### SurgiCam® HD

Record and broadcast your procedures from a clinician's eye view.

- SugiTel's loupe mounted SurgiCam HD video system provides a clinician's eye view recording of procedures while encouraging a healthy and safe working posture.



Scan to Learn  
More About  
Companion  
Products



### Eye Protection

Do you need dental eye protection? Are procedures using Lasers or X-Rays putting your eye-safety at risk?

- SurgiTel products meet and exceed OSHA recommendations, providing real, beneficial protection that is easy to wear.



### Loupe Refurbishment

Keep your loupes in "tip-top" shape with an annual refurbishment.

- Detailed inspection
- Professional, detailed cleaning
- Hinge replacement (FLM)
- Replacement of small parts where possible
- Side-shield replacement
- Retainer strap replacement
- Carrying case cleaning
- Evaluate loupe alignment



## EXPERIENCE THE SURGITEL DIFFERENCE

SurgiTel offers a suite of Vision and Ergonomic products including a full range of magnification loupes (2.5x to 10.0x), several true color LED headlight options, ergonomically designed stools, and loupe-mountable HD cameras. SurgiTel has focused on innovations that follow our mission: To enhance our clients' work and lives by supporting their best working posture, alleviating compounding neck and back strains, and helping them give patients the best care. We achieve this by innovative products that enhance Vision, Posture, and Comfort.

### Schedule an In-Person Demo and Evaluation

[www.surgitel.com/evaluation](http://www.surgitel.com/evaluation)



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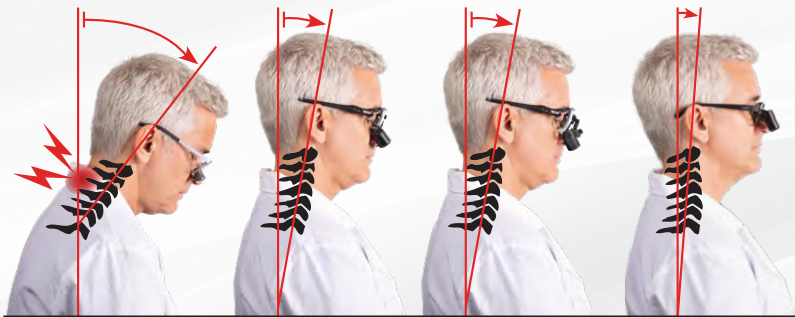
# Stop Neck Pain!

with **Ergonomic Loupes from SurgiTel.**

*Requirement of ergonomic loupes is a head tilt angle of less than 20-degrees.*

**SurgiTel**

77 Enterprise Drive  
Ann Arbor, MI 48103



**Competitor  
TTL**  
(Fixed DA)

**SurgiTel  
Ergo TTL**  
(Fixed DA)

**SurgiTel  
Ergo FLM**  
(Adjustable DA)

**SurgiTel  
ErgoDeflection**  
(Fixed DA)