



bd

LOUPES

POWERED BY XENOSYS



## Making **smart dentistry** simpler

At Bryant Dental we are inspiring and exciting dentists worldwide, with technology that is beautifully designed and expertly engineered. Combining innovative prototyping, rapid 3D modelling, precision printing and the latest AI technology in customer logistics, we deliver products to you that were previously thought impossible.

Loupes give magnified vision to dramatically improve the important aspects of dental surgery. This enhanced vision, of even the smallest details, allows quicker, more precise treatment and gives you the power to perform the highest-quality dentistry.

Not all loupes are made equal – we have searched and independently compared the entire market, and use military-grade technology to bring you loupes that improve your clinical performance and protect your posture like never before.

# Seeing is believing



## Depth of focus

With 3-5 times greater depth of focus than ever before, you can maintain visual focus even when your patient moves. This also makes it easier for your nurse to bring instruments into your field of view.



## Aerospace materials

Using aerospace-grade aluminium, our loupes are exceptionally high strength and unbelievably light, with no flexure.



## Field of view

The unique lens design within the telescopes gives you the widest field of view imaginable, with full arch even at five times magnification.



## Angle of declination

No glue is used, as the telescopes are set through the lens by heating and rapidly cooling. This allows declination angles at least equal to flip-up designs.

## ULTIMATE LENS CLARITY

Designed and constructed using next-generation techniques, our loupes give you unrivalled clarity, with minimal chromatic and spherical aberration. You really need to see it to believe it.

## ADVANCED FRAME RIGIDITY

High-rigidity alloy prevents distortion and lens misalignment over time. Having no flexibility at the bridge arm eliminates alignment errors, preventing double vision and eye strain.

## REFINED LENS COATINGS

- » Anti-scratch
- » Anti-fog
- » Anti-glare



## Engineered to suit you



### Our unique 16-point facial measurement system

Every face is different, so our loupes are tailored to be as individual as you are. Our highly trained specialists take 16 different measurements of your face, eyes and head, to ensure your loupes fit perfectly and give clarity across your whole visual field. We also design our bespoke loupes to be in harmony with your working posture, with a well-measured working distance and the correct telescopic declination angle providing comfort and protection from injury.



### 3D scan

We take a 3D scan to assess your head shape and ear position, relative to the bridge of your nose. This gives a highly accurate guide for us to construct your bespoke frames, ensuring they are angled and balanced correctly.

**AEROSPACE**  
Grade aluminium construction

# Biomechanical design for musculoskeletal harmony

Simple tips for arranging your workplace ergonomics to help improve your posture



**1** Sit in a stable, symmetrically upright posture. Sit tall as if being drawn upwards from the crown of your head.



**2** Place the working field of the mouth in the midline of the body by moving your chair or asking your patient to turn their head.



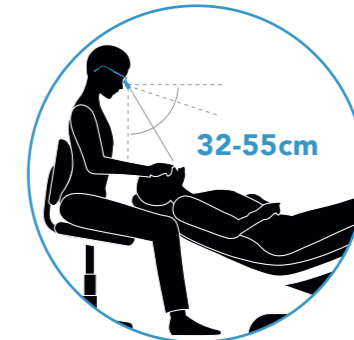
**3** View your working field by hinging at the hip joint, avoiding twisting actions. You may need to move your chair away from the headrest slightly to achieve this.



**4** Place your feet flat on the floor, legs slightly apart and your knees bent to an angle of less than 90 degrees.



**5** Keep your elbows close to your torso, with 90-115 degrees of flexion, with your shoulders relaxed, not rounded.



**6** There should be around 32-55cm between you and the working field (although this can vary between individuals). The patient's head should be in the region of your stomach.

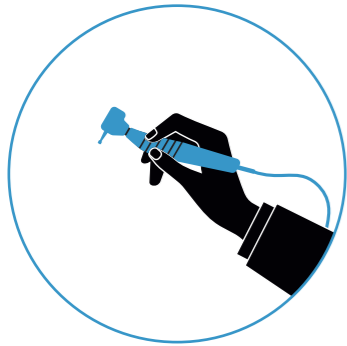


**7** If using a back rest, make sure it is stable and situated between your pelvis and your lumbar spine.

Approximately two thirds of the dental workforce has been subjected to a work-related injury.

**Don't become part of the statistic.**

## Biomechanical design for musculoskeletal harmony



8

You should hold your instruments in a modified three-finger pen grip, with the fourth and fifth digits available as a fulcrum.

**Dental postures are predominantly static, which often results in muscle fatigue, ischaemia and imbalances. Over time, this can cause pain, particularly when maintained regularly and for long periods of time.**

Wherever possible, change positions frequently throughout your working day – stand up to write notes and move around between appointments. Exercising regularly outside of work can also greatly help.

Try and avoid pushing your head forward with a poking chin, as this usually results in rounded shoulders and a flexed lumbar spine. This posture makes certain muscles work harder and for longer than they are designed to, creating fatigue and possible pain.

### How loupes help to improve your working posture

Dental loupes have been well documented for making working easier and reducing a forward head position, compared to no loupes.

As the working distance means you need to remain further from the field of view, loupes promote an upright posture. You also benefit from having an optical advantage of the working field, which improves quality and precision.

The combination of increased comfort and greater optical clarity culminates in a more relaxed and productive working environment.

However, these factors are only true of TTL loupes with steep enough declination angles and correctly measured working angles. Using poorly designed loupes can actually contribute to musculoskeletal injury.

Some cervical neck flexion may be needed to view your working field at a perpendicular angle. By utilising the deep cervical neck flexors (chin

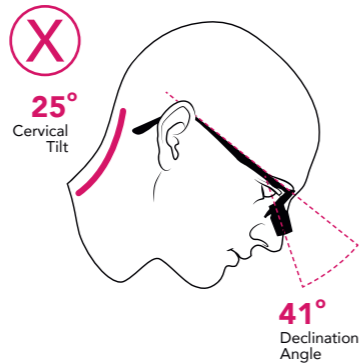
tuck and tilt), rather than a forward chin posture, you place less strain on the cervical spine.

At Bryant Dental, we've designed our loupes to be one of the lightest on the market, to combat the ergonomic restraint of increased weight and pressure placed upon your neck. We have also engineered our loupes telescopes to ensure the perfect balance between cervical neck flexion and the downward cast of your eyes by inferior rectus muscles. This significantly reduces neck and eye muscle fatigue, enabling a long and injury free career.

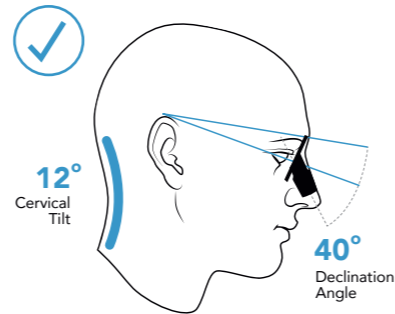
## Declination angle

Declination angle must be measured from a fixed facial reference point, not the frame temple arm.

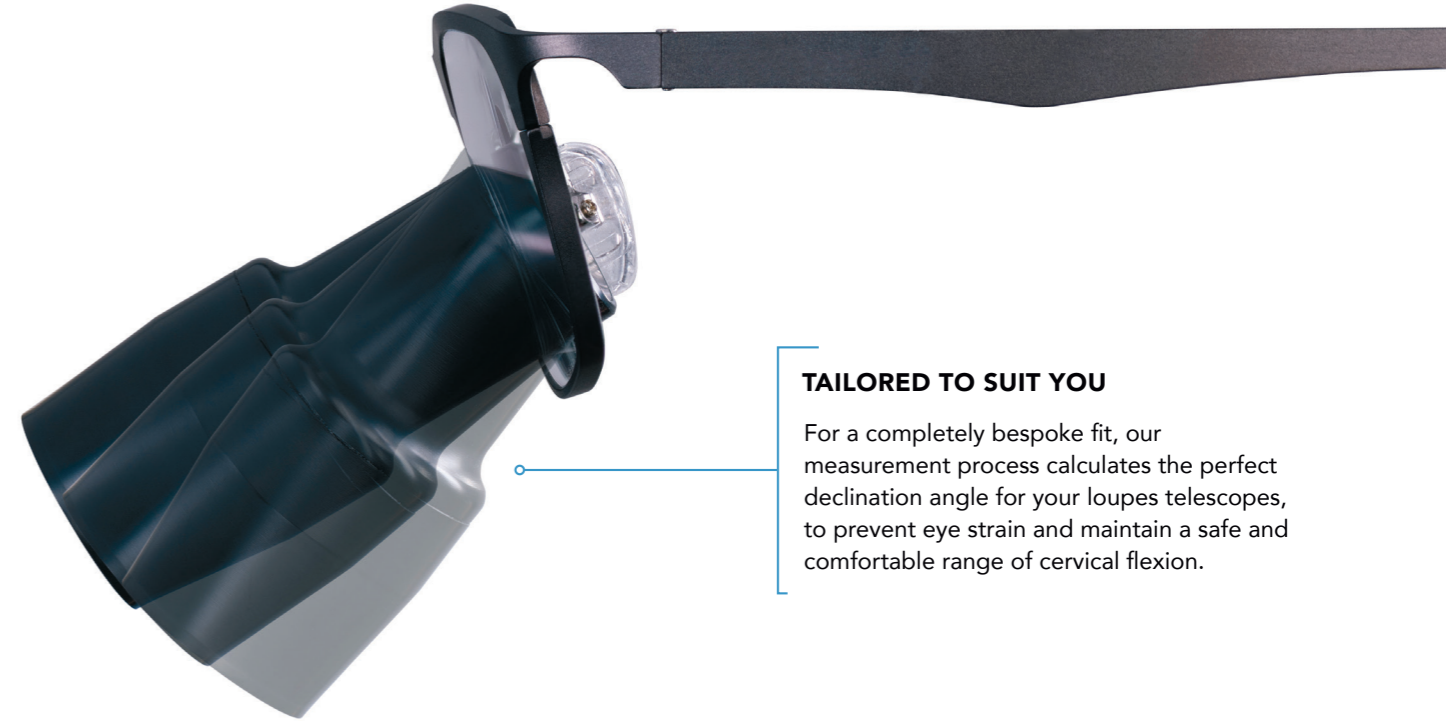
For the true declination angle, a reference line should be drawn from the top of your ear to the corner of your eye, then through the ocular axis until intersection. Different companies use varying reference points, meaning the stated angles can be confusing. The critical factor will be your cervical neck tilt, which should ideally remain within 12 degrees.



An overstated declination angle, measured using the temple arm reference, can cause neck strain over time.



Using facial reference, the true declination angle can be measured, protecting against future neck strain.



### TAILORED TO SUIT YOU

For a completely bespoke fit, our measurement process calculates the perfect declination angle for your loupes telescopes, to prevent eye strain and maintain a safe and comfortable range of cervical flexion.

## The perfect prescription

**Many dentists need prescription eyesight correction.**

A recent prescription by your qualified optometrist will allow us to assess how best to configure your bespoke loupes. In most cases, we will have to make a correction within the telescope and the carrier lens. This usually costs between £120 and £240 (including VAT). If, at any time, your prescription changes significantly, you will not need new loupes – simply return

your existing ones to us and we will update the lenses. This usually costs around £240 (including VAT).

All of our prescription lenses are ultra-high index to minimise any increase in weight and maintain the highest levels of clarity.

If you wear reading glasses, you have a choice of focal distances in the carrier lens. 'Near' is made equivalent to your individual working distance

(around 40cm); 'middle' is the approximate distance to a computer screen from a seated position; and 'far' is around the room. If you wear contact lenses, you will not need your lenses to have any prescription correction.

Using a valid prescription to configure your bespoke loupes will ensure you maintain your working distance and depth of focus.





Built to perfection. See our collection



PAGES

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Rounded frame options available on all product ranges

# 2.5x




## Galilean Telescopes 2.5x


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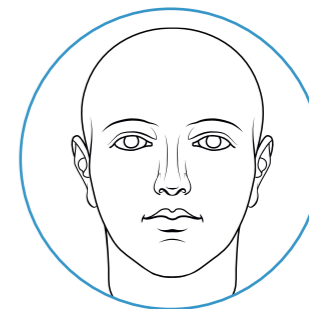
These **2.5x magnification loupes** offer the largest field of view and depth of focus at the lowest weight in our collection. These are the ideal loupes for dental hygienists and facial aestheticians wanting to visualise a full face, for easy positioning of instruments and landmark identification.

### TECHNICAL DETAILS

 **Weight** 21.5g

 **Field of view**  
(@40cm) 16cm

 **Depth of focus**  
30-40cm



View finder coverage

# 2.8x



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## Galilean Telescopes 2.8x


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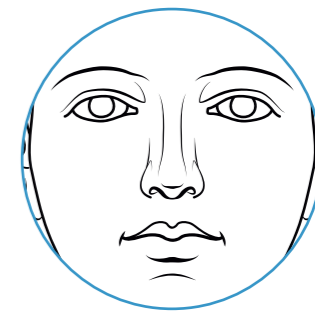
The **2.8x magnification loupes** (often referred to as 3x by many brands) offer extreme versatility and are perfectly suited for general dentistry and those early on in their careers. With such a large depth of focus, they are particularly easy to use with a range of nurses and patients.

### TECHNICAL DETAILS

 **Weight** 26g

 **Field of view**  
(@40cm) 13cm

 **Depth of focus**  
20-30cm



View finder coverage

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# 3.5x



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## Prismatic Telescopes 3.5x


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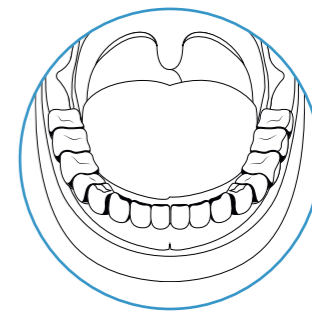
For those seeking more detail than the 2.8x, and don't mind the extra weight of the prismatic optics, the 3.5x magnification is the ideal choice. These are particularly suited to those doing crown and bridge work, as well as more complex smile-design projects.

### TECHNICAL DETAILS

 **Weight** 62g

 **Field of view**  
(@40cm) 9.8cm

 **Depth of focus**  
15-20cm



View finder coverage

# 5.0x



## Prismatic Telescopes 5.0x


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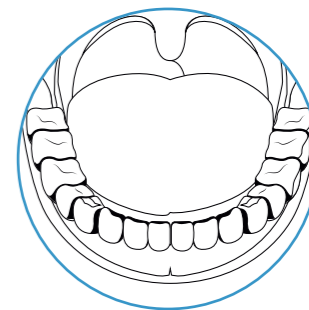
For the ultimate magnification, our 5.0x is an unrivalled work of stunningly precise craftsmanship and military-grade engineering. If you are looking to truly take your work to the next level, this is the magnification for you. These loupes enlarge every single detail, with pin-sharp definition.

### TECHNICAL DETAILS

 **Weight** 75g

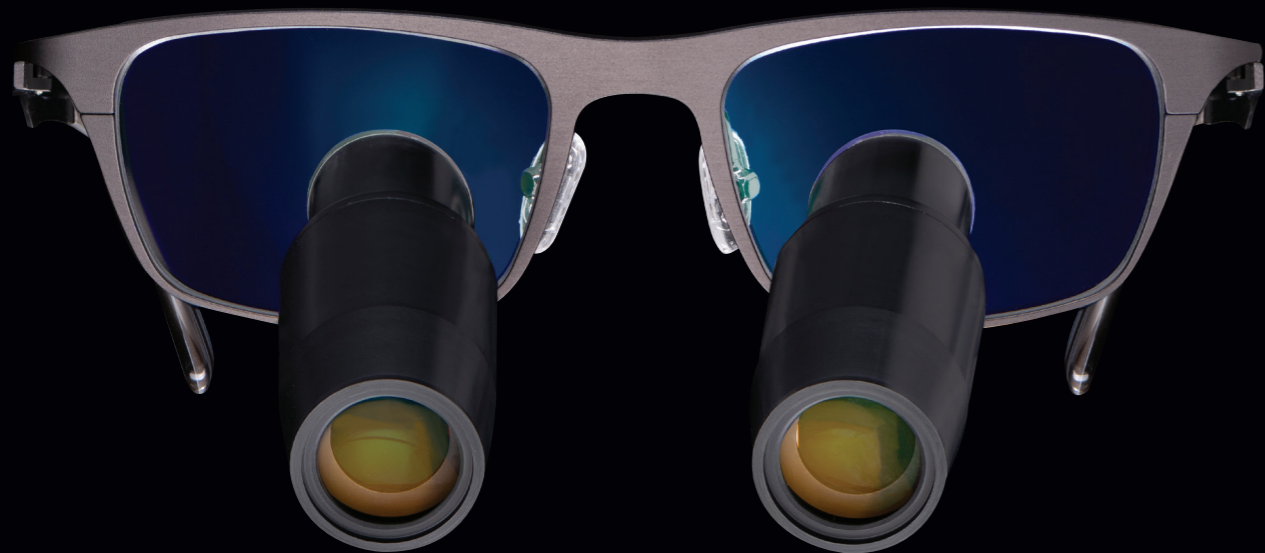
 **Field of view**  
(@40cm) 6.2cm

 **Depth of focus**  
11-14cm



View finder coverage

# 7.5x



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## Prismatic Telescopes 7.5x


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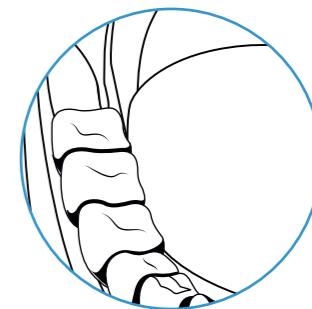
The 7.5x is the next generation of loupes magnification. Remarkably engineered and designed, these are the ultimate choice for the highest calibre of dentists, giving exceptional levels of detail. A full arch field of view at 5x is incredible enough, but a quarter arch at 7.5x is a whole new game altogether. In fact, it's larger than most brands at 5x.

### TECHNICAL DETAILS

 **Weight** 81.7g

 **Field of view**  
(@40cm) 4.1cm

 **Depth of focus**  
4-5cm



View finder coverage

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### PERSONALISE YOUR CASE

Included in your purchase, this case can be laser engraved with your choice of text, for true personalisation



### MAXIMUM SECURITY

Re-enforced hinges and TSA-approved locks

## Peace of mind

With our matte black case you can enjoy stylish, luxurious and exceptional protection for your loupes and wireless headlight. Beautifully designed, the soft internal microfiber foam lining conceals elegantly positioned neodymium magnets, which hold the contents safely in place. The precision engineering ensures a snug fit with minimal bulk, while the TSA locks and reinforced hinges provide maximum security.

To further protect and maintain your loupes, we recommend only using Formula 42® loupes cleaning system, as we can finely control the chemical makeup to ensure no damage to the lenses or scratch and glare coating.



**FORMULA 42**  
LOUPES CLEANING SYSTEM



## Intelligent charging



## IGNIS

The wireless headlight of the future – brighter, lighter and smarter

The first of its kind, IGNIS® produces an incredible 84 lumens from a tiny 9g aerospace-grade anodised aluminium-encased LED. The neodymium battery is built into the headstrap, distributing weight towards the back and away from the nose. Every aspect of this light system has been designed and engineered with dentists' needs in mind.



### Battery technology Where the magic happens

With a combination of highly efficient lens assemblies and beautifully designed battery technology, the IGNIS® Wireless Headlight offers all the advantages of a wired light – and more.

The neodymium enhanced battery plates allow you to switch between batteries effortlessly and seamlessly, meaning you never have to worry about power again.





## Precision composite filter

Work with composite effortlessly and without loss of visibility

The precision filter prevents composite curing by specifically cutting out any wavelength of light that cures composite – nothing more.

When the filter is in place, the light you see is pale yellow and not dark orange. This gives you enhanced depth perception and finer control over your aesthetic work. The filter is held in place with six neodymium magnets, giving perfectly smooth transitions and no need for screws that will inevitably loosen over time.

**Coming soon:** Our composite highlighting filter, which separates tooth from composite for easy identification.

## Next generation material science

The rarest materials, expertly crafted and artistically deployed

With aerospace-grade aluminium and NASA-pioneered anti-reflective coatings, IGNIS® is one of the most state-of-the-art lights ever designed. Graphene-impregnated battery packs give maximum longevity and re-enforced wire connections prevent failure at crucial moments. The LED itself is housed in aircraft aluminium, giving exceptional heat dissipation and durability.

## Headstrap

We have designed our luxuriously soft and non-stick polysiloxane headstrap to not get caught in your hair and be completely disinfected. The innovative IGNIS® Slate Grey Headstrap gives you maximum comfort and durability. Able to withstand thousands of disinfection cycles with Formula42® Wipes, it maintains its remarkable comfortable and aesthetic finish. The medical-grade polysiloxane we use has been used in implant surgery for many years due to its excellent biocompatibility.

All of our loupes can be worn without a toggle, if you wish to do so.

# Advanced LED technology



Using a wireless headlight with a co-axially aligned LED significantly improves your field of vision.

You also benefit from an even distribution of light and the flexibility of not having to adjust an overhead light. While wireless headlights with LED technology are becoming an increasingly standard practice in dentistry, many users are unaware of the potential risks they can pose to eye health.

An LED with too high a colour temperature can have a detrimental affect on eye health. Our wireless headlights encompass LED technology that is one of the most advanced – and safest – on the market. We only use colour temperature that is proven to reduce the possibility of damaging your eyes, even when magnified with loupes and used for long periods of time.



## Optical radiation

The colour temperature of the LED is a crucial factor in whether the light output will be harmful to your eyes.

 **Ideal range**  
Up to 6000K

 **Increased risk**  
Over 6000K

**Our LED technology**  
5700K

At 5700K, the IGNIS® Wireless Headlight sits perfectly in the range of one of the most advanced – and safest – on the market.

# Advanced LED technology

## Blue-light hazard

Daylight white is usually measured at 5500K to 6000K, which is the range used for dentists for shade matching. Most other LEDs are non-achromatic – this makes colour matching difficult and increases the risk of onset macular degeneration, due to blue light emissions. The higher the colour temperature of the LED, the higher the blue light emissions.

Usually bright light will initiate a pupil reflex, which will reduce

the effect of incoming light. However, the retina is particularly insensitive to blue light, meaning you could be exposing sensitive retinal components to damaging wavelengths of optical radiation, without even realising it.

With our state-of-the-art LED technology, you can be sure that light emissions are of a safe level, reducing the risk of harming your eyes – even with prolonged use.

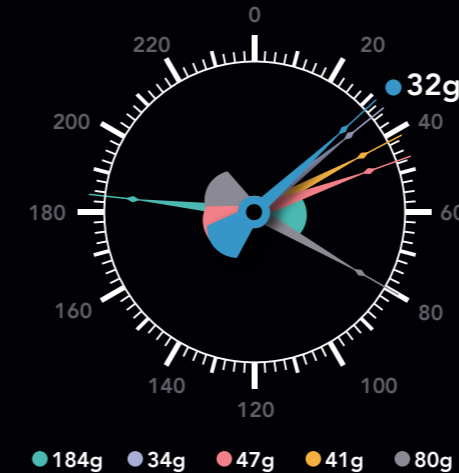
## Bright ideas

Cordless headlights are convenient, comfortable and make it simple to put on and take off your loupes. They eliminate the risk of snagged cords and offer flexibility while working. However, this convenience can come at a cost – many cordless headlights have a shorter battery life, place more weight on your head, have lower intensity settings and have high LED colour temperatures that can increase the risk of damaging your eyes. But not the IGNIS® Wireless Headlight.

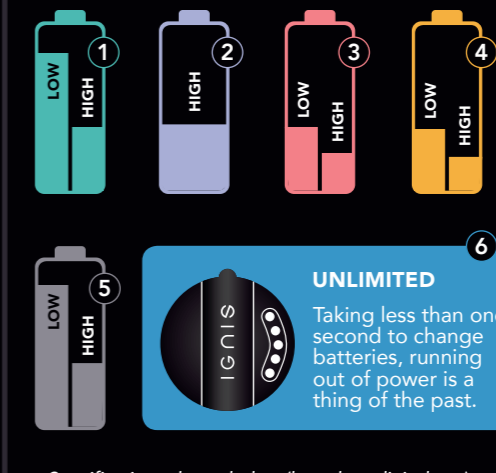
- XV1 Orascope
- PeriOptix Firefly DenMat
- Spark Orascope
- Nano Freedom Plus DentLight
- LED Wireless by Designs for Vision
- **IGNIS®** by Bryant Dental

# Comparisons

## Full unit weight (grams)



## Average battery life



Specifications shown below (based on clinical use).

## Colour temperature



- ① Low: 5hrs 30mins High: 2hrs 45mins
- ② High: 2hrs 55mins
- ③ Low: 2hrs 45mins High: 1hr 45mins
- ④ Low: 2hrs 35mins High: 1hr 30mins
- ⑤ Low: 5hrs 45mins High: 2hrs 45mins
- ⑥ Regular: 3-4hrs High: 2hrs

## Don't take our word for it. [See for yourself](#)



Six months on from purchasing my 5x magnifying loupes and I can truly say they have improved the care I provide for my patients. I would not feel comfortable to work without them. I have been extremely impressed with the quality from Bryant Dental – I cannot recommend these guys enough!

**Dr. Arjan Singh**



I have practised dentistry for over 20 years and used a few 'off-the-peg' loupes with moderate satisfaction. Since using Bryant Dental loupes I have seen a massive improvement in my ability to carry out intricate procedures. Daily use leaves me with no headaches or eye strain. Anyone practising dentistry without these loupes is missing the smaller picture!

**Dr. Hitesh Gohil**



I received my loupes this week and already I can't work without them! All I can say is that they have completely changed my dentistry for the better. Not to mention my improved posture. The loupes fit and feel great and the service from Bryant Dental was excellent from the initial measurements to delivery. Competitive price, great product and an excellent service!

**Dr. Afaq Mahmood**



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[See more reviews online](#)

## Connections

At Bryant Dental we strive to provide healthcare professionals with superior visualisation regardless of their geographic location. Headquartered in the United Kingdom.



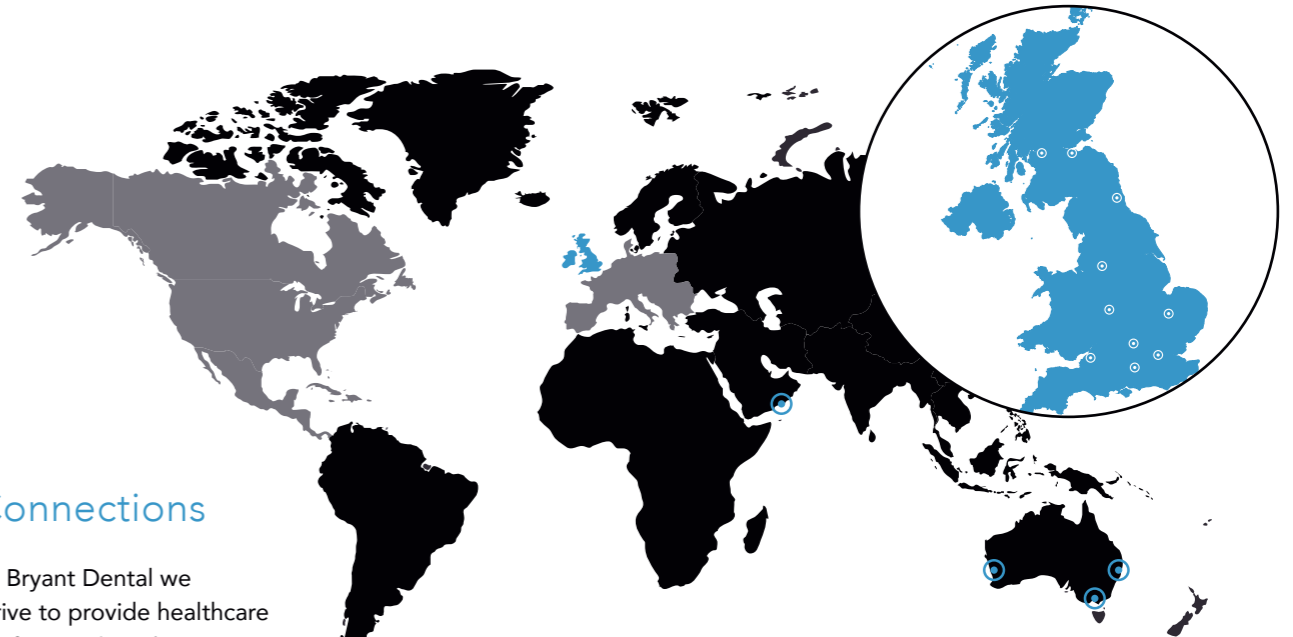
### UK specialists

London, Newcastle, Manchester, Glasgow, Edinburgh, Oxford, Guildford, Bristol, Cambridge, Birmingham



### International specialists




UAE and Australia (Dubai & Sydney)



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