Oph the Record

Edition 2024

Artiplus: Meeting Expectations, Exceeding Results

Precizon Go
Promising start of Ophtec's new IOL

Sustainable Ophthalmology; Together We Can!
An interview with Sjoerd Elferink

Dr. Al-Zawaideh on the Benefits of Precizon Presbyopic NVA

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Preface

Welcome to this new edition of Ophtec's company magazine. As we continue to prioritize innovation and excellence in eye care, we love to share our developments with you.

No two eyes are the same, and in Ophthalmology no year is the same. The industry keeps evolving with new products emerging daily. To stand out, we prioritize our R&D to offer the best solutions and create IOLs with superior optics for better patient outcomes.

The start of 2024 displays what we believe in. We completed the clinical trial of Artiplus, our new flagship IOL with CTF-technology. Truly a big plus in the treatment of presbyopia for patients aged 40 - 60, offering clear vision at all distances. The results of the multi-centered international clinical trial were impressive, with a patient satisfaction rate of 99%(!). At the ESCRS in Barcelona, we celebrated a wonderful evening with leading experts from over the world to discuss the potential of the lens. We are excited to announce that we have received CE approval this November.

We also launched Precizon Go, a new member of our Precizon Family. This premium cataract IOL offers enhanced intermediate vision without compromising distance We already have seen that this lens performed excellently in both bench and market studies. The field outcomes even surpassed our expectations. Every week we are excited to hear amazing stories and receive great data from doctors. How did we achieve it? In this edition of Oph The Record, we will tell you all about it.

The medical industry does not stand still and as we all know, sustainability is becoming an urgent matter. At Ophtec, we made significant investments in upgrading our production site to reduce our environmental impact. We have embedded sustainability as a key pillar in our company's strategy. We asked Dr. Sjoerd Elferink to share his view on this important topic in this edition of Oph The Record. We can only support his call: 'We need to face this challenge together!'

I wish you happy reading and hope to see you soon.

Warm regards,

Erik Jan Worst
President & CEO
Ophtec

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Artiplus: Meeting Expectations, Exceeding Results

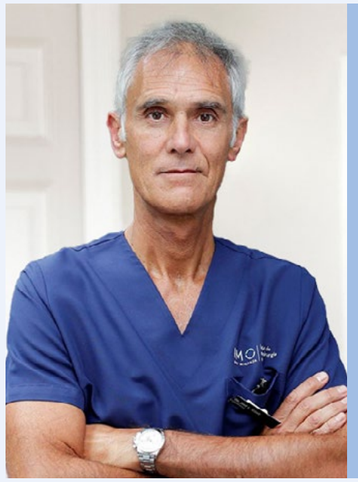
At Ophtec, we are at the forefront of innovation. In this article, we delve into our Artiplus lens, a new frontier in presbyopia correction. We speak with Erwin Bouwman, Manager Clinical Research at Ophtec, to uncover the potential of this revolutionary lens in presbyopia correction. As of November 2024, Artiplus holds CE approval.

Hi Erwin, can you tell us something about the new Artiplus IOL? What is the purpose of this new lens?

Artiplus is one of the first Phakic Presbyopia correcting lenses on the market. We used our trusted Artiflex platform, which has been on the market for over 20 years, together with the unique CTF-technology from our presbyopic correcting cataract IOL for the optic. This way we created a new lens with a completely new purpose. With Artiplus we can help patients who are relatively young, early 40’s, to correct their refractive errors and presbyopia. Patients can see very clearly from a distance, they can work on the computer at intermediate distance, and they can read their cellphones without any correction.

What was your first thought when your engineers showed you this lens concept?

I instantly thought that this is a novel product. It allows surgeons to treat relatively young Presbyops who don’t have viable or suitable options. Of course, there are presbyopic laser solutions, but they are not very popular due to their side effects. If we can offer a solution that provides patients with a better quality of vision, then it’s definitely a treatment option that could outperform available alternatives.



‘The results from the clinical study for uncorrected distance, intermediate and near visual acuity were extraordinary good. In my experience with Artiplus, the results have been extremely consistent.’

Prof. Dr. José Güell

You already mentioned the CTF-optic. What makes this optic special?

The main difference from other lenses is that we have a multi-segmented optic instead of the more common rings. We also use a refractive lens design because we believe that this more closely matches natural vision. The optic itself has 11 segments, which generate elongated focal points for smooth transitions between far and near vision, providing high-quality vision.

Is it a good alternative for laser even for the low diopters?

Most people are aware of laser techniques for the correction of myopia and hyperopia. The laser solutions for the correction of presbyopia are not very popular. It is known that 30% of their patients experience a lack of quality in vision. There is a group of patients where you really notice a degradation or a reduction in their quality of vision after the laser surgery has been performed.

We completed the analysis of clinical trial data with a one-year follow-up, and we don’t observe that. On average, the patients are highly satisfied with the vision they achieve with their uncorrected vision after the implantation of an Artiplus lens. We looked at symptoms like glare, halos and starbursts, and when you compare those results with PresbyLASIK or what we know from trifocals, we perform much better. So that’s one of the main benefits of this product.

Artiplus is an iris-fixated IOL. What would you describe as the main benefits of this technique?

In general, one of the main benefits of an iris-fixated IOL is the “one size fits all” principle. You can directly center the lens over the pupil. An iris-fixated IOL is more pupil-independent and more tolerant for decentration. If you place a lens in the posterior chamber, you face different sizes, depending on the width of the eye. In a certain percentage of patients, surgeons may accidentally select the wrong size. That can result in adverse events. We don’t have those issues. Once patients meet the inclusion criteria, we have one size that fits in the anterior chamber without any negative side effects.

Some surgeons ask us questions about a supposed higher risk of endothelial cell loss. That is a bit of a bias we’re facing. Back in the late 1970’s, when Prof. Dr. Worst developed the first iris-fixated lenses, we didn’t have today’s technological capabilities. Some patients received lenses that we wouldn’t implant with current knowledge, leading to increased endothelial cell loss in a small percentage of cases. Today, advanced technology allows excellent preoperative screenings. And we know so much more about the product and provide precise information to patients. These are two key improvements. As a result, the risk of endothelial cell problems is very low. Clinical studies show that, on average, endothelial cell loss is comparable to that is observed after cataract surgery or even un-operated eyes when all criteria are adequately followed.

What was the set-up of the clinical trial?

We did a multi-centered clinical study with nine sides in Europe and South Korea. The good thing is that when you have such a novel product as Artiplus, the investigating doctors are enthusiastic and highly engaged. We had a great collaboration in fine-tuning the patient selection and inclusion criteria, which resulted in excellent outcomes.

Can you tell us something about the results?

The results blew us away. They were even better than we expected. The same goes for the investigators: patient satisfaction levels are high, with all of the patients in the trial reporting that they are either satisfied or very satisfied with the procedure’s outcome. The defocus curve shows that the lens performance from far up until 30 cm is excellent. It is 0.8 decimals or better. It’s probably best in class.

What surprised me the most were the levels of visual acuity that the patients achieved uncorrected. Some patients were, for example, high myopic from minus 8 to minus 10. Uncorrected, they’re functionally blind. After the implantation of Artiplus, they saw uncorrected for distance 100% or better. So 1.0 decimals or better. At the same time, we’re also providing them with excellent uncorrected visual acuity. That’s a big life changer for these patients, as they used to rely on glasses for basically all activities, like driving a car and reading. Now, you’re providing them with an option that allows them to be completely free of glasses. This truly creates the ‘wow’ effect.

It makes me personally proud that we could achieve such high patient satisfaction rates. All investigators said that once the product is CE certified after this clinical trial, they will continue using it. We truly accomplished something remarkable with this lens.

Artiplus is already available in South Korea. Are the results in the field as good as those in the clinical trial?

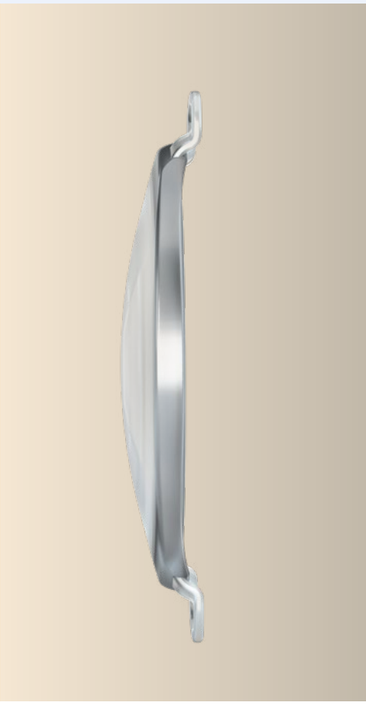
We were able to launch commercially in South Korea earlier. We are seeing the same great results in the Korean market that we achieved in the clinical study.

How would you describe the ideal patient for Artiplus?

The ideal patient is a patient who is really motivated to get rid of their glasses for near vision. But, if they also have refractive errors like myopia or mild myopia, this is also a good option. It can be used for a large group of patients, from hyperopia to myopia. And we are working on the Toric version, so we can treat almost all patients who are willing to get rid of their presbyopia correcting glasses.

And our final question: is this our best lens ever?

I think so, yes. The results of the clinical trial speak for themselves. We’re bringing together two worlds: iris-fixation and the CTF optic. The merger of these two systems has probably led to our best lens so far.



Download the Clinical Evidence

Artiplus is an innovative iris-fixated phakic IOL, uniquely combining Ophtec’s Artiflex platform with its patented CTF-technology for presbyopia correction. Learn more about its spectacular preliminary results in the Clinical Evidence.

Precizon Go: Promising start of Ophtec's new IOL

In the beginning of 2024 Ophtec launched the newest member in their premium line of cataract IOLs; Precizon Go. This lens offers Enhanced Intermediate Vision without compromising on the quality of distance vision. Time to dive in with product specialist Úrsula Jaén and engineer Leo de Jeer to learn all about this new lens.

In your presentations at the DOC and ESCRS you talked about the ingenious lens design. What makes this so special?

I would say several things.

One of them is that it is a purely refractive lens. We do not use diffraction in the optic. This is one of the main reasons why the patients don't or hardly see halos and glare. We're not using any rings, segments or transition elements. The surface is beautifully smooth. In fact, if you look at the lens closely, it looks like a regular monofocal lens.

What's also special, and that's where our engineers really did an amazing job, is the way how we inducing and controlling a little bit of spherical aberration. The center and the periphery of the optic is intended for distance vision and aberration free. Only on the mid-periphery we induce a little bit of positive and negative spherical aberration to increase the range of vision of the patients and to compensate the corneal aberration of the eye.

Because of the aberration free center, there's no compromise on distance vision. And if you have a patient with a very small pupil, at least distance vision will be good. You will not get a bad distance vision ever. This is completely different to other lenses in this segment. Distance vision is always safe.

How do you see the positioning of the lens in current the market?

We call it an Enhanced intermediate vision IOL. It's somehow in between of a monofocal plus and an EDOF lens. The design looks like a monofocal plus lens but performance like an EDOF lens. That's why we call it an Enhanced Intermediate Vision IOL. Or in my opinion the new standard for cataract surgery.

You have guided several bench and market studies. What have you learned?

Of course we did our own internal bench studies. And we asked the David J. Apple institute on the University of Heidelberg (Germany) to do an independent bench study. They compared Precizon Go with our own Precizon Monofocal and the biggest competitor is this segment. We received very good results.

Both Precizon Go and Precizon Monofocal demonstrated very similar optical quality. Our aim was to extend the range of focus while maintaining the same good quality of vision. In the bench studies we already saw

Hi Úrsula, can you tell us something about the new Precizon Go lens?

Sure. We see cataract patient's demands are changing. People will not only settle for clear distance vision but also want improved intermediate vision for activities like watching television or using the computer. Our goal was to create an IOL lens that provides the same excellent distance vision as a monofocal lens, while offering better intermediate vision. With Precizon Go we succeeded to offer a plus in intermediate vision without compromising on the quality of far vision.

our goal was achieved. And Precizon Go gives a larger range of focus, up to more or less 1.5 diopters. This means that patients can see clear up to at least 66 cm.

In comparison to other, known EDOF lenses, we also saw that the optical quality of Precizon Go is better, especially for the higher resolutions. This is very good news because the higher resolution is the one that your eye really needs for sharp vision.

Next to the bench studies, we did a multi-centered clinical study in Spain, Germany, The Netherlands and South-Korea. Again the results were excellent for distance and intermediate vision. We measured the vision of patients at 66 and 80 cm and we could see that within that range of distances the vision was between 0.1 and 0.2 logmar which is approximately between 0.6 and 0.8 decimals. Patients are able to read very small letter sizes.

In the study we asked the patients if they were happy with their distance vision, intermediate vision and if they saw some kind of halos and glare. 100% of the patients were satisfied or very satisfied with their distance vision and 92% were satisfied or very satisfied with their intermediate vision. 1 month post-op up to 85% of the patients did not see any halos or glare.

In the field, doctors are all highly positive on the outcomes and the patient's satisfaction. In the following months more results from studies with bigger samples, more measurements and a longer follow-up will be published.

What is the best patient for Precizon Go?

Doctors can help two kind of patients here. Precizon Go can serve as a substitute of the regular monofocal lens, as the new and better standard cataract IOL. People who are looking for perfect distance vision will be very happy, plus they get an extra bonus on intermediate vision. It is also very suitable for people that are asking for spectacle independence in day-to-day activities like working on the computer or controlling the dashboard in the car. Maybe they still need glasses for reading very up close, but for distance and intermediate vision they can be spectacle independent. For this group it's a more affordable solution than a Prebyopia correcting lens or Multifocal lens.

So Precizon Go really closed the gap between Monofocal and Full Range of Vision IOLs.

'100% of the patients were satisfied or very satisfied with their distance vision.'

Leo de Jeer is Sr. R&D Engineer at Ophtec and played an important role in the development of Precizon Go, especially in the ingenious optical design.

Hi Leo, we hear a lot about the donut shape in the optic. Can you explain to us what this is?

To create the enhanced intermediate vision, we had to modify the curvature of the lens locally. If you look real closely, you can see a sort of donut shape. By changing the lens curvature in specific areas, we could adjust the amount of enhanced intermediate vision. We have experimented with many variations, positioning the 'donut' closer to the center and towards the edge of the lens to find the best shape and size. Our goal was to achieve aperture-independent performance for the enhanced intermediate vision, meaning it should work well regardless of whether the aperture is small, like 3mm, or larger, like 4.5mm. The enhanced intermediate vision should consistently be effective.

As one of the creators of this lens. What are you most proud of?

We developed this lens in about 1,5 year. That was fast. We needed the whole R&D team to develop this lens with a new optical principle and such good outcomes in this time span. Each one has his own specialism. One is more to watch the measurements, one is to watch the simulations, the other to watch the measurements through our own model eye. I'm especially proud that we as a team could created this lens in the amount of time we had.

The result of Precizon Go are very good and even outperform some big competitors. Did you open the bottle of champagne when you heard that?

Haha, yes we celebrated it a bit with some cake with the R&D team, so that was nice.

'New lenses like Precizon Go are radically transforming our approach to cataract surgery, opening up new possibilities for both surgeons and patients. This goes beyond merely restoring vision to its pre-cataract level; it aims to improve the overall quality of life for patients undergoing this type of surgery. With the Precizon GO, we have yet another powerful tool in achieving this goal.'

Dr. Simo Murovski (Augenzentrum Erzgebirge)

Interview

Sustainable Ophthalmology: Together We Can Make a Difference!

Dr. Sjoerd Elferink, ophthalmologist at Flevoziekenhuis in Almere, is a passionate advocate for sustainable healthcare. He is a driving force behind the greening of ophthalmology, in the Netherlands and internationally.

In this interview, Dr. Elferink discusses his motivations, the challenges and opportunities of sustainable ophthalmology, and the role of collaboration.

‘If I operated for a day, it was the equivalent of a car ride from my house to Cape Town in South Africa’

What sparked your interest in sustainable ophthalmology?

Years ago, as a young doctor, I had an incident in the operating room with a cannula. After a full day of operating, we wanted to identify the cannula, the culprit, in the waste. But we couldn’t: we didn’t know which of the 13 cannulas in the waste it was. We reported this incident to the inspection and one of the suggested improvements was to keep the waste separate for each operation. Suddenly, I became painfully aware of the enormous amount of waste generated from placing such a small lens.

In my private life, I was already very concerned with sustainability. For example, I rode my speed pedelec to work instead of driving a car. At that time I came across a study by Dr. Morris (published in 2013) that calculated the environmental footprint of a cataract operation. When I extrapolated that footprint to one day of operating, the result shocked me. It meant one day of cataract surgery (15 surgeries) equaled a car drive from my hospital to Cape Town in South Africa! It didn’t let go of me. I made all that effort to cycle to work from Amsterdam to Almere (30 km, ed.) so I could leave the car behind. But meanwhile, the CO2 emissions from a day at work were almost a thousand times greater than the emissions from the car journey I wanted to save. That’s when I realized focussing on my professional life could have a much greater impact.

You actively seek cooperation with politicians, insurers and industry organizations. Why is cooperation in the chain so important?

The reason I am so focused on cooperation is that I discovered the theme of sustainability can bring people together in order to drive change.

I recently spoke to the Board of Directors of an Academic Hospital who had been discussing the topic of appropriate care - i.e. which care to provide or not to provide - solely from a cost perspective for some time. There was a lot of resistance from the shop floor, as they naturally wanted only the best for the patient. But sustainable care is simply appropriate care. Since this most sustainable approach is to provide necessary care and to leave out unnecessary care. By viewing appropriate care from a sustainability perspective, we suddenly got all hands together.

And consider the social urgency. People find the topic important and are looking for a way to give it meaning. It is also such a complex problem that it cannot be solved by healthcare professionals alone. Let this be the first theme that we can really cooperate on.

Isn’t this a task to a large extent for politics? What do you expect from the authorities?

Of course, we are facing a megalomaniacal crisis. Read the IPCC reports. They are not lying. It’s all evidence-based. Not just a little bit, but researched by tens of thousands of scientists. So how in the world is this not at the top of the agenda of every government in the world?

The recent global crisis of Covid was on top of the agenda because Covid visibly affected people directly. Climate change is a much worse global crisis. But its threat to human health is less visible and it is progressing much more slowly. Therefore it is also much slower to address. Besides, for Covid you can develop a vaccine, but for climate change there is not one single solution.

People often say that sustainability is about preserving the future of our children. But if you are currently under fifty, there is a significant chance that you could die from the consequences of the climate crisis, such as heat stress. The argument “I have to do this for my children”, is bullshit! Of course children matter because parents are role models to them. I want to show my children that I am not going to sit back and do nothing, but instead, I am going to fight for this.

What role can the industry play in promoting sustainable practices?

What I often hear is that the industry claims they do what the customer wants. So they bounce the ball back. Therefore I am trying, together with others, to shift our demand towards a more sustainable demand.
But it would show leadership if more people from the industry stood up and said, “This is going all wrong.” We are going to take a leadership role in this because we believe it is

‘The argument “I have to do this for my children”, is bullshit!’

important. We are going to use our R&D for this, support research. Or make more knowledge available. In the short run it may cost us money, but in the long run it will provide us a first mover advantage. I sincerely hope the industry will show this leadership.

One can also look at it more non-competitively. Why not really work together as an industry? For example: take the pizza industry. The manufacturers said a decade ago; "Hey, we have too much salt in our products. We know it's bad for people, so it has to go down. But if I'm the first one to reduce the salt, customers may stop buying my pizzas because they find them less tasty." Therefore the manufacturers decided collaboratively to lower the salt levels bit by bit every year. The pizzas now contain much less salt than they did ten years ago. Together they made a significant impact.

What are some examples of impactful initiatives in sustainable ophthalmology?

One notable initiative is the SIDICS (Sustainability Index for Disposables in Cataract Surgery) calculator developed by the ESCRS. This tool allows surgeons to assess the environmental footprint of their surgical products, encouraging more sustainable choices.

Note, many initiatives rely heavily on the voluntary contributions of individuals working in their own time. That's special because it shows the intrinsic motivation and commitment of people on making a positive impact. But things move slowly. So, if we want to accelerate more, we need more time and resources. I have reduced my working hours myself to dedicate more time to this topic. With a team we were able to secure a grant for the Dutch Ophthalmic Society to develop a roadmap to reach the goals of the Green Deal.

Working on sustainability allows you to get a more broad view on your profession and connections with other fields of science. There is the whole technical aspect of calculating the environmental impact of products for instance. But it also touches on social, philosophical and ethical issues. And of course psychology; how are we going to change human behavior? You will have to engage with knowledge from various fields and collaborate with other people.

How do you view the relationship between sterility and sustainability? Are they in conflict with each other, or can they go hand-in-hand?

First and foremost, and this is really important, patient safety is just as important to us. We want to explore how we can operate just as safely while using fewer resources and reducing our environmental footprint. But I do think some of the current infection prevention measures are an overkill, at least in our field. This is understandable because formerly the only criterion for these measures was whether they could reduce infections. If we could afford it, we would do it. Meanwhile a lot of measures have been implemented that are not funded by evidence and aren't sustainable at all. For instance the drape size during cataract surgery. Surgical drapes vary from 4 square meters to 1.2 square meters within the same country. And we know from research that these disposable drapes are a major contributor to the carbon footprint and to the amount of waste we produce during cataract surgery. It doesn't make sense to cover up the entire patient with a full body drape when we make a 2mm incision. I am convinced that using a face drape instead of a full body drape does not jeopardize patient safety and it will have a huge impact on the environmental impact in our field if we would all apply this measure.

Collaborating with infection prevention specialists can be really tough from time to time. I understand that because their interest is to prevent infections. But I do notice they start looking at the greater picture as well. By delivering healthcare the way we are still doing nowadays, we are a major contributor to climate change and therefore we are in fact harming public health. That's the paradox we must break through. Together.

Next to reducing the CO2 footprint, circularity is a big topic. What is the difference?

Note that CO2 emissions are difficult to calculate and the conclusions can vary largely between countries. Sometimes throwing away a product can have a smaller footprint than reusing it. In Australia, for example, using disposable gowns for the surgeons and scrub nurses can be more sustainable than reusing them. Why? A) In Australia they use a lot of brown coal for energy production, so washing reusable gowns would generate more CO2 emission than in a country with a greener energy mix. And B) The travel distances to laundries can be much greater. So a disposable option could be better in that case.

Next to CO2 emissions, circularity (i.e. minimizing your primary resources) is actually much simpler. If something is to be circular, it can never be linear. Throwing something away is, by definition, not circular. While the disposable gown in Australia may have a smaller footprint regarding carbon footprint, it's not circular. Sometimes, carbon footprint and circularity don't go entirely hand-in-hand.

So we all consider sterility and safety equally important. But we also need to think about how we can improve circularity and reduce our CO2 footprint.

And is that possible?

Yes, I think so. Look at all the disposables. They've been made so cheaply by the industry that they are affordable by most clinicians. Using common sense, you might think a brand new disposable item is safer than something that has been sterilized. And since we can afford it, we opt for the disposable option. Now, a new criterion is being added. It's no longer just about cost. It's also about CO2 emissions and circularity. When you reconsider things with that in mind, you might come to very different decisions.

There's also a role for the industry here. There's clearly a knowledge gap for us as customers. A manufacturer should be able to provide, for each product, the difference in price, footprint, and circularity, so that we can make the right choices. That should be the goal.

Do you see this overkill primarily in the safety measures overall, or also in value-based care, like deciding what treatments to perform or avoid?

An example of overkill can also be found in the surgeries themselves. You need to think carefully about indications and triage. Take outpatient visits as an example. The sum of pre- and postoperative patient visits for cataract surgery in Western countries varies greatly, between 3 visits to 9! It's quite interesting—couldn't we minimize that?

It's also about CO2 emissions and circularity. And when you reconsider things with that in mind, you might come to very different decisions.

Do new digital technologies play a role in that?

Yes, definitely. Some visits can be replaced by telehealth. But improvement is also partly empirical. In the past, you'd always do a one-day post-op check after cataract surgery. And then you'd see that most of the follow-ups were fine. Eventually, a few daring people said, "I'll just make a phone call." It turned out that most follow-up calls were fine as well, which led to, "We'll only call when necessary."

Bilateral surgeries are becoming more common. How do you view that in terms of sustainability?

There are fewer trips involved, and that still has a significant impact. As long as we haven't fully electrified transportation, this does make a difference. It shouldn't be the primary reason for bilateral surgeries, but it can certainly be one of the reasons.

What would you advise doctors or hospitals to do to further reduce their footprint?

With the ESCRS' YOFS (Young Ophthalmologists for Sustainability), we've identified five easy initiatives under the theme "Start Next Monday." These are things an ophthalmologist can start doing right away.

1. Air handling

The first initiative is the least easy, but also has the greatest impact. It's the air circulation in the operating room. In the Netherlands, the vast majority of operating rooms do 69 air changes per hour, while 20 is sufficient. That's a factor of 3 (!). When considered that over 90% of the energy used in the operating room is for air handling, the savings potential becomes clear. Furthermore new studies show that decreasing the amount of outside air (which has to be heated and humidified) and increasing the recirculation air can significantly decrease the energy usage. Additionally, you can save even more by turning off the air handling outside working hours and adjusting the humidity. Humidity is often controlled using steam, which consumes a lot of gas. In the Netherlands, a humidity level between 50-65% is the guideline, but research shows that 30% is also sufficient. All these measures combined can lead up to more than 70% of energy savings.

For many ophthalmologists, this might feel like it's beyond their control. You can't manage everything alone. You need someone motivated to contact facility management and say, "Look, I want to adjust this and this for these reasons." We've made these changes in our hospital too. And guess what? You can save money as well.

2. Surgical brushes

The second initiative is surgical brushes. For many of us, a day in the operating theater starts with the ritual hand washing that includes the disposable brush. It feels good to thoroughly scrub your hands. However, studies clearly show that there is no added value of using these brushes. In fact washing with the brush causes a higher bacterial load on the hands. The reason is that scrubbing with the brush can rub off bacteria that would otherwise have remained in place. Therefore, the use of the disposable brush is obsolete. It is only, and only then needed when your hands are visibly dirty. For instance, if the chain of your bicycle fell off (laugh, red.).

3. Armrest covers

If you use armrests during surgery, you probably use disposable sterile armrest covers. There is a simple trick to prevent using those. A doctor in the Netherlands pointed out how odd it is that we wear sterile gowns and then sit down on a non-sterile chair. This makes our back immediately non-sterile. So, he said, "I'll leave the back of the gown open since it's not sterile anyway. When I sit down, I drape the gown over the armrests." This way, fewer armrest covers are needed. It's a great example of rethinking. And if you realize how significant the footprint of these covers is...

4. Eye shields

Reduce the use of eye shields. These do not contribute to post-op recovery in uncomplicated cataract surgeries. Many clinics in the Netherlands and Scandinavia have already successfully stopped using them.

One of the 5 practices of YOFS is the reduction of eye shields

5. Surgical drapes

As mentioned earlier, simply replace full-body drapes with face drapes. All these measures can be found on the ESCRS website: www.escrs.org/special-interest-groups/yos/yofs/.

Do you see differences between countries? Are there leaders or guiding nations?

There are significant differences between countries. In the Netherlands, we're really leading the way in ophthalmology, alongside gynecology and anesthesiology. Other champions are the UK, Australia and Scandinavian countries.

Was there anyone who inspired you to take this issue seriously?

The study by Dr. Morris that I mentioned earlier eventually triggered a snowball effect. It raised a lot of awareness and led to follow-up research. For me personally, if that article hadn't been published, I would never have known about the environmental footprint of cataract surgery. I wouldn't have been so committed to this cause.

But my greatest inspiration is David Chang. It was back in 2019 when an international colleague advised me to get in touch with David about the topic of waste and sustainability. At the time, I'd only been an ophthalmologist for two years in the little old Netherlands. To me, David Chang was like a Barack Obama figure. I wrote to David, with shaky hands, to explain what we were working on in the Netherlands and to emphasize the need for international collaboration to make a real impact. Within ten minutes, no kidding, I received a detailed reply. It started with the words, "Dear Sjoerd, I would be happy to collaborate with you on this important topic."

Fantastic! That such a role model also recognizes the importance of this. His influence has been pivotal in making this a topic of discussion in ophthalmology. It's fascinating to see the impact one person can have. In turn, David Chang was inspired by India. Cataract surgeries in India are extremely high quality, with excellent patient safety. They've been dealing with resource scarcity for decades. Scarcity that we're now facing globally and which will only become more urgent. What lessons can we, as so-called high-income countries, learn from low- and middle-income countries about resource conservation? Flipping the narrative is something I'd still love to do.

So, David Chang inspired you, and you're now trying to inspire others. Are we moving fast enough?

In the Netherlands, there is a Green Deal for sustainable healthcare based on the European Green Deal. The Green Deal for healthcare has been signed by all relevant parties, including the government, insurers and care institutions. That's unique because nowhere else in the world has one like it. The goals are very clear about where we need to go.

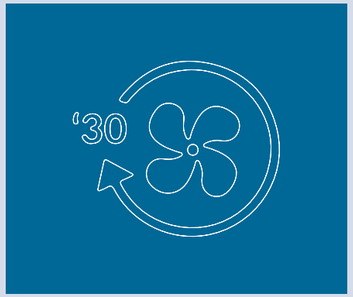
This issue is so urgent that, by definition, the answer to the question "Are we moving fast enough?" is "no". We're not moving fast enough because CO2 remains in the atmosphere for more than 120 years. Even if we stop all emissions today, warming will still continue. So the question isn't whether the sea level will rise by three meters or not—the answer is yes. The real question is when. Will it happen before 2100 or in the 22nd century? That depends on how quickly we stop emitting.

So, are we moving fast enough? Look in the mirror. We all need to change—everyone. It's such a complex issue that if you only focus on the end goal, you'll feel disheartened. Draw energy from what can be done. Look at what you can contribute. For instance the Start Next Monday campaign I mentioned earlier are major successes. If we focus on those successes, we can make significant progress together.

#StartNextMonday

YOFS: Young Ophthalmologists For Sustainability

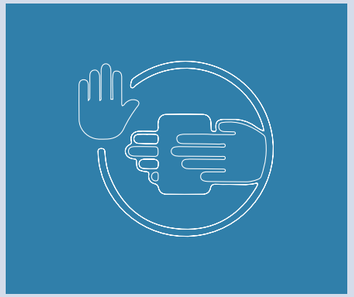
To ensure greater sustainability in operating theatres, YOFS developed 5 clear practices that can each have a vivid and positive impact without compromising patient safety.



YOFS 1

Enable Ventilation 30 minutes Before Surgery

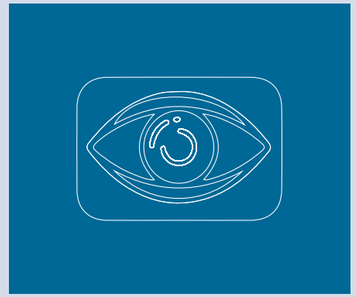
Switching off ventilation outside office hours saves energy and reduces emissions without compromising infection control, as studies show.



YOFS 2

Use Disposable Medical Sponges Sparingly

If your hands aren't visibly dirty, an alcohol-based wash is sufficient to protect your patient from infection, with no need for a surgical scrub brush.



YOFS 3

Replace the Full Body Drape with a Face Drape

Studies show that face drapes are as effective as the much more wasteful full-body drapes.

YOFS 4

Cover Armrests with Your Gown

Instead of using separate armrest covers, use your gown to cover the armrests during cataract surgery, as your back doesn't need to be sterile and this reduces waste without risking contamination.

YOFS 5

Dispense with Eye Shields for Post-op Patients

Eye shields provide no benefit after uncomplicated cataract surgery, and many facilities in Scandinavia and the Netherlands no longer use them.

Do you want to know more about YOFS?

More information can be found on the website of escrs.org. Scan the QR code to read the full #StartNextMonday article.

Andrew

Carla

Dave

Erwin

Jeffrey

Lottie

Meet Helena

Michon

Sam

Somesh

Tim

Vivian

Wendy

For this article, we traveled to Emmerich am Rhein in Germany for an interview with our colleague Helena Daniels. She works as a sales coordinator at Ophtec Germany and recently had Artisan lenses implanted. It's high time for an update, then.

Can you describe your role as a Sales Coordinator?
'I handle all orders, invoices, payment reminders, returns, warehouse checks, and customer service. My role involves a variety of tasks and I primarily focus on ensuring everything runs smoothly from the moment an order is placed until it reaches our customers.'

What do you enjoy most about your job?
'I enjoy the variety of responsibilities and the diverse nature of the work,' Helena shares. 'Each day brings new challenges and opportunities to learn, which keeps the job exciting.'

How do you contribute to making our customers happy?
'I help our customers by tracking their shipments, answering questions on the phone, assisting them with invoices, and processing their orders. It's rewarding to provide solutions and support that ensure our customers have a positive experience with us.'

What has been your experience in the ophthalmic sector so far?
'Since joining Ophtec, I've gained a lot of insight into the ophthalmic sector. Through hands-on experience and ongoing learning opportunities, I've developed a deeper understanding of eyes, lenses, and the innovations shaping this field.'

Helena's surgery diary

Helena is not only working for a lens company but recently got Artisan PIOLs herself. We asked her about her experience upfront and after the surgery.

Before the surgery

Can you tell us what kind of complaints you experience?
I cannot wear contact lenses comfortably. My eyes get very dry, and the lenses can fall out. I can't swim without glasses or do much of anything.

How long are you wearing glasses and what diopter do you have?
I have been wearing glasses since I was 15 years old. My Diopter are both OS & OD -7.5.

How does this interfere with your daily life?
The first thing I do in the morning is put on my glasses. If they are a bit bent, I can't see well. I am always wearing glasses, which is quite heavy. I can't wear sunglasses unless they are big enough to fit over my glasses.

What made you decide to go for IOL surgery? And how does working at Ophtec influence your choice?
I just don't want to wear glasses anymore. I was thinking about the future and how expensive progressive glasses could be. My colleagues helped me explore my options and clarify what I wanted from the surgery. They really supported me in making my own decision about the surgery.

Did you do a lot of research yourself on the surgery or possible IOLs?
I asked my experienced co-workers and the Managing Director. I trusted their experience.

What are you hoping to achieve with this surgery?
I expect that I can see as well as I could with glasses. I hope I have quite some years ahead without glasses.

Are you going to do something special to prepare yourself for the surgery?
I prepared a nice case to store my classes in.

1 day - post up

Helena, how did it go? How are you feeling?
My eyes burn a little. Comparable with dry eyes. My eyes are very sensitive to sunlight, but otherwise, I'm fine.

How did you experience the surgery?
Very well. I felt that I was in good hands. The team was really nice and answered all my questions.

Do you already notice any effect?
I can't see as well as before, but that's normal on the first day. However, I can see much better than I was expecting.

'It was a great decision. I do not have any pain or other problems.'

4 days - post up

How do you look back on the surgery?
It was a great decision. I do not have any pain or other problems.

Are you satisfied with the results?
Both eyes are perfect. On the left eye there is still my Corneal curvature but that was planned. Overall I'm really happy. I can see better than before.

What changed the most for you in your daily life?
I now can take a shower and see everything clearly. I no longer have to deal with foggy glasses. I can do whatever I want without worrying if my glasses will stay in place or fall off. I went swimming and into the sauna, and it's really nice to be independent.

Do you experience any side effects?
I see more reflections. But I think that's because my glasses were highly de-reflected.

Did the surgery lived up to the expectation or hopes you had upfront?
Yes, I haven't regretted it for a single day!

What are you going to tell people if they ask about the biggest advantage of this [Ophtec] IOL?
All the discomfort of wearing glasses will disappear. You might feel a bit off for just three days, but after that, it's like it never happened, except now you can see without glasses. It's not bothersome or different from before. You'll feel as if you never had bad eyesight.

But if you don't mind wearing glasses or if you can see fine without them, then this is not the solution for you.

What would your advice be to other people who are up to IOL surgery?
Take your time after the surgery. You will have some difficulties with light for the first days. It will feel like your eyes are very dry. But that will only last a few days. After that you will be able to see perfectly fine.

Product Highlight
TCT Technology

Precizon Toric **Benefits**

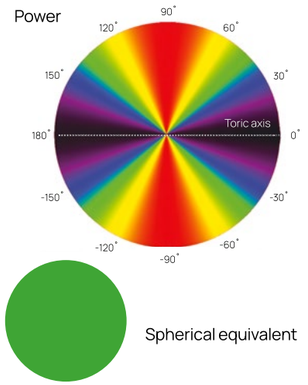
- Broader Toric meridian designed to be more tolerant to misalignment, tilt or decentration
- Average of 1.9 ° rotation reported by 'best practice'
- Constant power over each meridian designed to provide optimal visual acuity
- Aberration neutral surface with aspheric sphere and torus
- Proven stability
- Precizon Ophtec Calculator available online for a proper IOL cylinder power selection

Why are Precizon Toric and Precizon Presbyopic Toric highly tolerant to misalignment? What is the technology behind them?

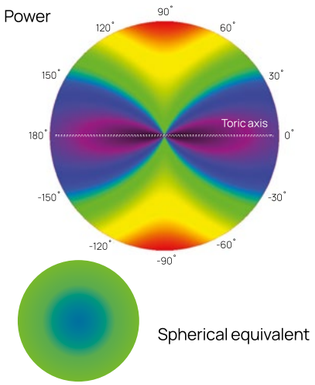
Precizon Toric IOLs are engineered with a patented **Transitional Conic Toric (TCT)** surface, an innovative technology developed by Ophtec. TCT technology features an aberration-neutral optic with an aspheric sphere and torus that blend across the surface of all meridians. This design leads to broader toric meridians, aimed to keep the alignment with the patient's astigmatism, even in cases of slight misalignment or decentration of the IOL. Furthermore, the dioptric power of Precizon Toric IOLs is calculated per meridian, ensuring a constant spherical equivalent power from the center to the edge of the lens along the different axis. This constant power provides the lens with pupil independence, making it adaptable to different patients, and guarantees an optimal visual quality for the patient.

Precizon™ Toric

(Transitional Conic Surface)

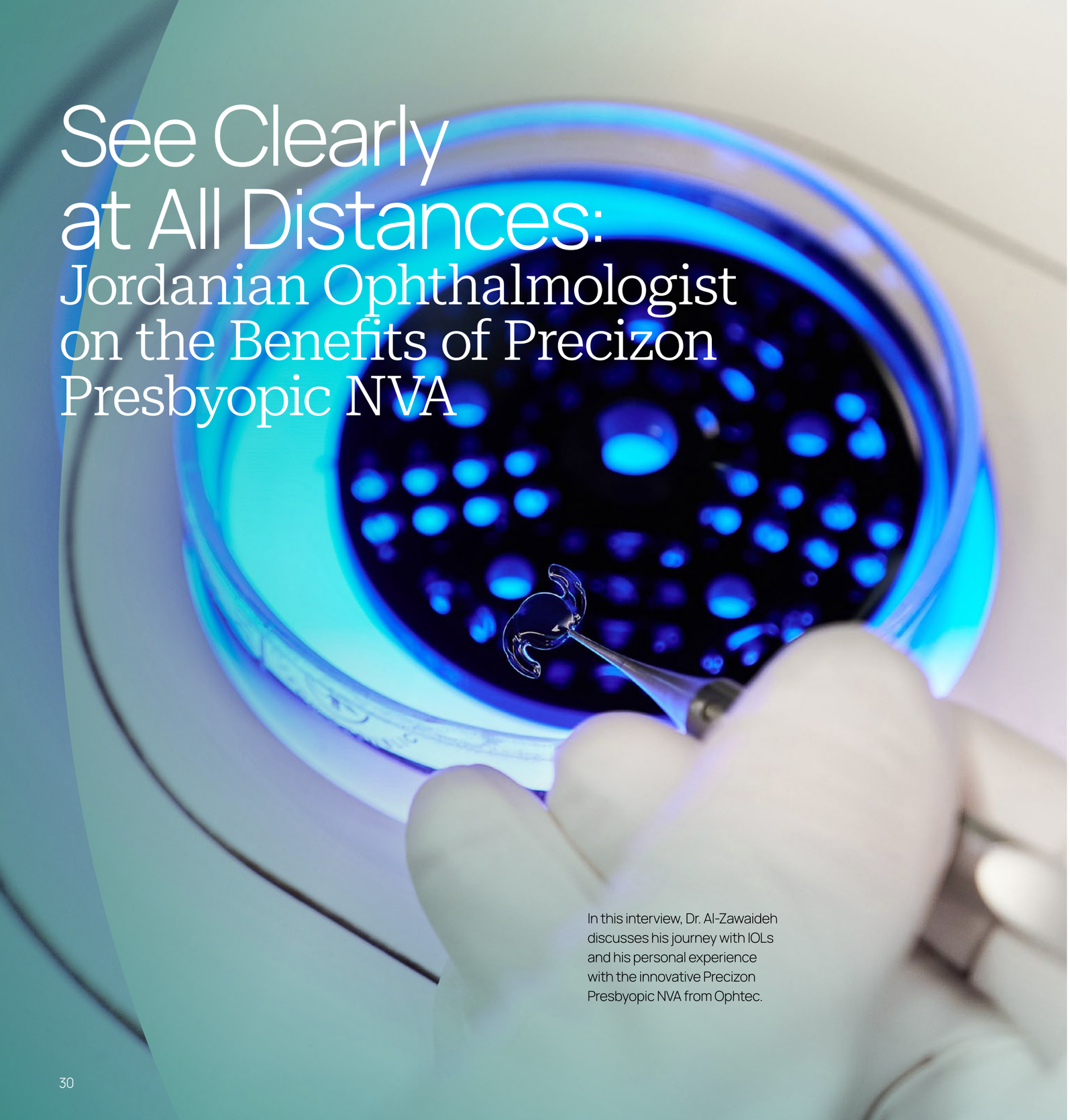


Standard Toric



See Clearly at All Distances:

Jordanian Ophthalmologist on the Benefits of Precizon Presbyopic NVA



In this interview, Dr. Al-Zawaideh discusses his journey with IOLs and his personal experience with the innovative Precizon Presbyopic NVA from Ophtec.

Dr. Farid Al-Zawaideh, a well-respected ophthalmologist from Jordan, has dedicated his career to helping patients see clearly. Driven by a personal experience with his mother's vision loss, Dr. Al-Zawaideh witnessed the impact of eye disease firsthand. This experience fueled his passion for ophthalmology, a field where advancements like multifocal intraocular lenses (IOLs) are changing lives.

Dr. Al-Zawaideh, you've dedicated your career to ophthalmology. What initially drew you to this field?

Actually, it was personal. My late mother suffered from retinitis pigmentosa, a vision condition. Witnessing her struggle motivated me to become an ophthalmologist and help others see clearly. There was no other choice in my mind!

Our readers always love to learn about different countries. Can you describe the ophthalmic community in Jordan to us?

Of course. The Jordanian Ophthalmic Society was founded in 1976. Originally, it had 15 original founding members. Now it has grown to 380 registered participants. It's an active society with a biannual international conference, as well as meetings for continuous medical education aimed at all subspecialties.

Personally, I think ophthalmologists in Jordan are very well-trained and up-to-date; as we attend international conferences regularly. Our investigational tools and operative equipment are top-notch. Also, ophthalmologists in Jordan are trusted both locally and in the region, attracting a continuous flow of medical tourism.

Dr. Farid Al-Zawaideh

Consultant Ophthalmologist in Jordan

Specialties:

- Inflammatory eye conditions (uveitis), medical retina, cataract surgery, complex cataract cases to anterior segment reconstruction
- Bachelor of Medicine, Bachelor of Surgery Jordan University
- Jordanian Board of Ophthalmology certificate
- Fellow member of Royal College of Surgeons (Glasgow)

You have been working with multifocal IOLs for a long time. Do you remember the first patient that you helped with multifocal IOLs?

My first multifocal implant was in 2012. The lens was a diffractive trifocal IOL. We both ended up being extremely happy with the results, considering drawbacks: halos, halos, halos!

What was the main reason for you to switch from trifocal lenses towards the Precizon Presbyopic NVA?

My biggest issues with the trifocal lenses were both vision and dysphotopsias, mainly halos. Once, a patient with a trifocal implant even blamed me for not mentioning the halos around the moon as she was a moongazer. This experience, and more specifically, this patient, reminded me to spend more time on counselling sessions prior to operations, as well as providing more real-life expectations.

For me, Precizon Presbyopic NVA was a good alternative for trifocals, offering better far vision as well as lessening halos. When I first looked at the lens under the operating microscope, it took me a while before I actually saw the perfectly designed segments. In addition, looking at the lens behind nondilated pupils makes it even more difficult for the untrained eye to notice that it is a multifocal IOL. I like the haptic design, which makes it very stable. So far, I never encountered decentration or rotation.

And please quote me on this. After starting to use Precizon NVA IOL, I have been receiving less phone calls at night! This lens definitely causes less troublesome issues.

Who is your ideal patient for Precizon Presbyopic NVA?

My ideal patient would be a presbyopic hyperope with significant cataracts and poor UCVA for far. Considering the fact that this lens is more tolerant to decentration, changes in pupillary size and larger angle kappa, makes it suitable for more patients than other IOLs.

What is the most significant difference in patient feedback that you experienced between trifocal IOLs and the Precizon Presbyopic NVA?

Well, clearer far vision, less halos and glare, and better contrast sensitivity. In my experience, halos are less troublesome in Precizon NVAs than in trifocal IOLs. I've told you that I receive less phone calls at night!

We hope we can help more people in Jordan together. Do you like working with a Dutch company like Ophtec?

Your team at Ophtec has been very helpful to me. For instance, your advice in difficult cases is very professional and very quick, and the IOL price is reasonable as well.

Thank you doctor!

‘I have been receiving less phone calls at night! The lens definitely causes less troublesome issues.’

Five Frequently Asked Questions to Our Consultants about CTF

1.

What is CTF-technology?

CTF, or Continuous Transitional Focus, is a groundbreaking technology. This patented, unique multi-segmented refractive optic is designed to provide patients with natural vision at all distances. We incorporate CTF-technology in our presbyopia correcting IOLs like Precizon Presbyopic (for cataracts) and Artiplus (for refractive use).

2.

Why do these lenses have segments instead of optical rings?

With CTF-technology, we developed a multi-segmented refractive optical design that generates multiple elongated focal points, allowing a full range of vision with a smooth transition between far and near. This results in higher quality of vision at all distances, with either no or minimal, non-disturbing visual artifacts.

3.

Is the Precizon Presbyopia CTF lens a bifocal or a trifocal lens?

Neither. CTF-technology is fundamentally different compared to bifocal or trifocal lenses. Bifocal and trifocal lenses create two or three sharp focal points, respectively, allowing distance, near, and intermediate (in the case of trifocals) vision. However, patients with these kinds of IOLs tend to experience blurred vision away from the two or three peaks of clear vision corresponding to the specific sharp focal points, as well as halos and glare. Our CTF-technology offers a better solution to address these shortcomings by providing a smooth continuous transition between focal points, resulting in higher quality of vision at all distances and minimal visual artifacts.

4.

How can CTF-technology reduce halos & glare?

CTF-technology results in best-in-class presbyopia correcting IOLs regarding quality of vision and dysphotopsias due to the two main factors:

1. The non-uniform refractive power profile throughout the segments creates very closely spaced elongated focal points that result in uninterrupted images and limited out-of-focus rays of light responsible for the halos and glare on standard presbyopia-correcting IOLs.

2. While standard MIOL rings are separated by relatively high steps with a unidirectional pattern, CTF segments are separated by multidirectional micro steps. This ingenious design causes fewer light disturbances, thus reducing photic phenomena.

5.

How do patients experience these lenses?

Patients experience natural vision, that is, uninterrupted, continuous vision from far to near distances. Patients are highly satisfied. Clinical studies of our Precizon Presbyopic NVA show that the perceived discomfort of halos and glare is significantly lower compared to trifocal lenses. The recent clinical study for our new Artiplus even shows a patient satisfaction rate of 98% (!).

More Questions?

Download the clinical compendium via the QR, or contact us via mail or phone. Our team is ready to support you with expert advice and outstanding solutions.

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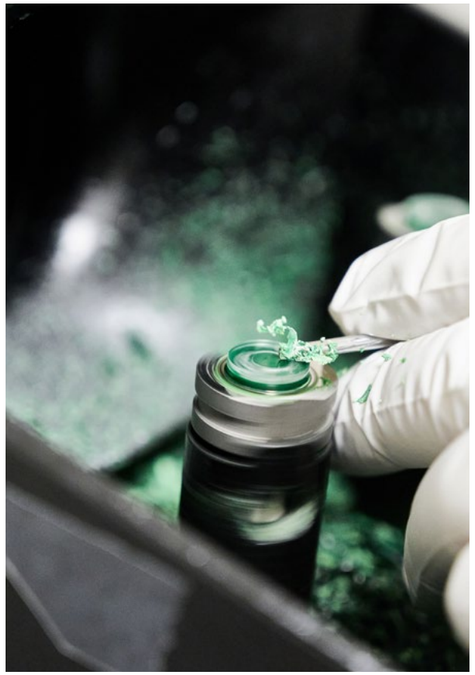
Experts meet at IMO Hospital Barcelona

During ESCRS 2024 in Barcelona, Spain, we invited a select group of refractive surgeons to explore Ophtec's latest innovation—Artiplus. A panel of leading experts, including Prof. Dr. José Luis Güell (Spain), Dr. Julián Cezón (Spain), Prof. Dr. Ramin Khoramnia, and Dr. Chan Young Im (South Korea), engaged in a lively discussion with the audience on how this iris-fixated multifocal phakic intraocular lens (IOL) could transform presbyopia correction.

MDR-proof

We're proud to announce that starting August 1st, 2024, our Precizon and Artiflex lenses will be delivered under the MDR (Medical Device Regulation) 2017/745.

The MDR is one of the world's strictest regulations for medical devices. Achieving this compliance demonstrates our deep commitment to the highest safety standards for our products.



Precizon Go Toric version is coming

Precizon Go is our new cataract IOL that offers Enhanced Intermediate Vision. After the successful launch we developed a toric version for patients with astigmatism. Precizon Go Toric is already commercially available in South Korea. CE-approval is expected mid-2025.

New partnerships

We are here for ophthalmologists to do their best job possible. For that reason we partnered up with several companies to bring more specialties and high quality ophthalmic products available for our customers. Ask your local representative for all possibilities.

- Sidapharm (for Visco and instruments)
- Kearing (Corneal rings)
- More

Save The Date

27 – 29 Nov	OB in Brussel, Belgium
5 – 7 Dec	KOS in South Korea
6 – 8 Feb	FacoElche in Elche, Spain
9 Feb	KOA in South Korea
12 – 15 Feb	OSSA in Africa

Check out the training dates:

Artilens Training Course

in Groningen, The Netherlands

28 – 2 Mar	W-ESCRS in Athene, Greece
2 – 4 Apr	NOG in Maastricht, The Netherlands
3 – 6 Apr	APAO in New Dehli, India
25 – 28 Apr	ASCRS in Los Angeles (California), USA
15 – 17 May	DOC in Nüremberg, Germany
12 – 16 Sep	ESCRS in Kopenhagen, Denmark

Don't miss out on the next edition

Published once a year, our magazine Oph the Record keeps you up-to-date with the latest interviews, developments and product innovations. Meet the people behind our success and stay ahead in the ophthalmic industry.

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Colophon

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