



KERATOCONUS

By Miguel Romero Jiménez, DOO, MSc.



Rose K2 NC Addresses Challenging Nipple Cone

Here's a closer look at the latest product in the Rose K portfolio.

Despite the tremendous success of the Rose K brand, its inventor, Paul Rose, BOpt, BSc, continues to explore new ways to improve what is already the most-prescribed keratoconus lens worldwide. The latest lens in the Rose K line was specifically designed to address one of the most challenging cases, the nipple cone.

Nipple cones normally occupy an area of the central cornea ≤ 5 mm in diameter. The steeply curved apex is usually located centrally or paracentrally and is slightly displaced inferonasally. The difference in curvature between the cone apex and the peripheral cornea generates excessive eccentricity, making contact lens fitting a challenge.

Nipple cone fittings often demonstrate steep edge lift, which causes discomfort for patients and usually necessitates adjustments to the lens to flatten the edge lift. Quantifying how much to flatten the edge lift by looking at a fluorescein pattern and other factors that affect the fit can take years to learn. The Rose K2 NC has certain features designed to improve fitting success, such as:

- 1) a small, aspheric back optic zone diameter, which decreases as the back optic zone radius decreases
- 2) substantial peripheral flattening
- 3) a range of edge lift options to precisely control peripheral fit
- 4) aberration control optics on the front surface of the lens.

Clinical study

Last year, I was one of 12 experienced keratoconus specialists who participated in a clinical study of the Rose K2 NC lens. Each practitioner received a trial set of 25 lenses in 8.30 mm diameter and base curves from 7.40 mm to 4.60 mm. As with all Rose K2 trial sets, the Rose K2 NC set includes power changes as a function of back optic zone radius to provide refraction as close as possible to each patient's ocular refraction.

A total of 120 eyes were fitted during this study. No adverse events or lens stability problems occurred in any case. The mean number of lenses per eye needed to obtain a successful fit was 1.3, representing a first-lens success rate of 86%,

which is consistent with the success rate reported with standard Rose K2 lenses.

Investigators measured the visual quality of 85 eyes wearing the Rose K2 NC as compared with the visual quality achieved with the patients' habitual lenses. They found 50 eyes wearing the Rose K2 NC lens had better visual quality, and 28 eyes had the same visual quality. Although not required in the study protocol, I compared the edge lift and lens stability of the standard Rose K2 versus the Rose K2 NC. Both lenses were fitted on the same eye and had the same back optic zone radius of 6.9 mm. As Figures 1 and 2 show, the Rose K2 NC has the better fit and edge lift.

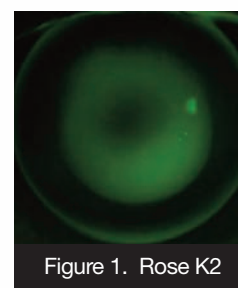


Figure 1. Rose K2

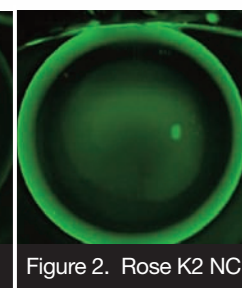


Figure 2. Rose K2 NC

Eleven of the 13 eye care professionals who participated in this study expressed

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PRODUCT NEWS

Menicon Launches New GP Lens Care System

Company continues to expand its presence in the GP arena with this new entry in the U.S. market.

Menicon America Inc. recently introduced a new GP lens care system in the United States. The system features a suite of well-known and trusted products with several enhancements, a new look, and an innovative selling strategy with added value for practitioners and patients.

Products you know and trust

The Menicon GP Lens Care System includes three well-known and field-tested products:

- **Menicon Unique pH.** This is the same daily cleaning, conditioning and disinfecting solution that has been available from Alcon Laboratories Inc. for many years. Menicon and Alcon worked out a deal for Menicon to acquire the Unique pH trademark and a worldwide license to the formulation. Menicon Unique pH is now available in a 4-ounce (120 mL) bottle with a free GP lens case in each box. "This is the same great Unique pH formula that has had an excellent track record," said David Moreira, vice president of

marketing, Menicon America Inc. "It is the flagship of the new GP Lens Care System."

- **Menicon Progent.** This cleaning solution, which has been available in the United States for in-office use only, was recently cleared by the Food and Drug Administration (FDA) for use by patients at home. It is indicated for use twice a month. The only change to the system, required by the FDA, is the addition of a rinsing solution (purified water). "Progent has been available to patients internationally for many years," Mr. Moreira said. "It is an excellent cleaner, especially for large-diameter lenses, orthokeratology lenses, and plasma-treated lenses, which require effective but gentle cleaning, so as not to alter the lens parameters or denude the surface."

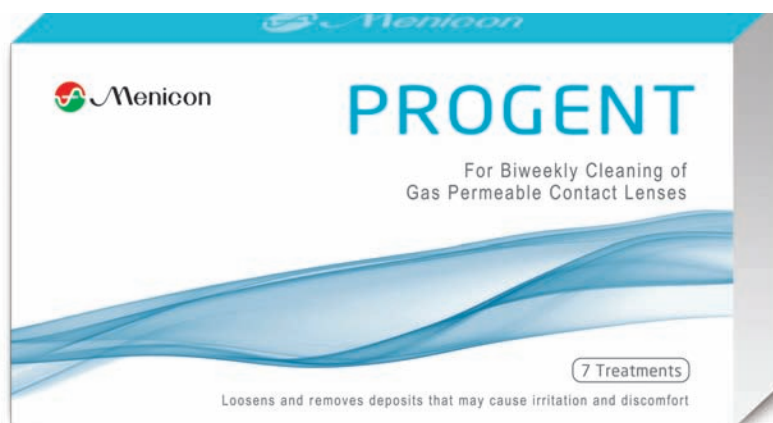
- **Menicon Rewetting Drops.** This product, which has been a component of the MeniCare system as Menicon WRW Drops, is now available in a convenient 10-mL bottle.

The Menicon GP Lens Care System—which includes Menicon Unique pH, Progent and Rewetting Drops—offers a synergistic approach to maintaining clean, wettable, comfortable lenses.

All of the products in the Menicon GP Lens Care System are safe and effective for all GP lens materials. "This new regimen offers a synergistic approach to maintaining clean, wettable, comfortable lenses," Mr. Moreira said.

Innovative selling strategy

Traditionally, eye care practitioners start their new contact lens patients with a





Menicon's WebStore offers value to patients and practitioners.

lens care starter kit, and when patients need more solutions, they purchase them online or at a local retail store. Although convenient for patients, this method of replenishing lens care products essentially bypasses practitioners, who may never know if their patients are adhering to the recommended lens care products or regimen. Menicon is addressing this issue with a new online service.

In conjunction with the launch of the Menicon GP Lens Care System, the company has opened the Menicon WebStore, which provides patients with the convenience of online ordering, while allowing practitioners to monitor

their patients' adherence to their lens care regimens. The WebStore is hosted by the eye care practitioner, while Menicon handles all ordering processes and product fulfillment.

As Mr. Moreira explained, practitioners will dispense a Deluxe Care System to patients as a starter kit, which contains a full-size bottle of Menicon Unique pH, a starter-size kit of Menicon Progent and a full-size bottle of Menicon Rewetting Drops. Each kit has a unique code that allows patients to enter the WebStore, either through the practitioner's website or via a stand-alone landing page. In addition to registering the pa-

Menicon's new WebStore provides patients with the convenience of online ordering, while allowing practitioners to monitor their patients' adherence to their care regimens.

tient on the site, the code also links each patient to his or her practitioner, who can track each patient's lens care purchasing history. Practitioners also earn proceeds from each sale.

According to Mr. Moreira, the Menicon WebStore adheres to the highest standards of online retailing. All transactions are safe and secure, orders are fulfilled in 48 hours, and there is no extra charge for shipping and handling. Products are competitively priced. Practitioners who prefer to sell lens care products in their offices can still obtain them from the company.

Win-win for patients and practitioners

Menicon's new lens care system combined with its exclusive e-commerce component creates an environment that is beneficial for patients and practitioners. To learn more, visit <http://store.meniconamerica.com/ecp> and click on "Questions?"

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Rose K2 NC Addresses Challenging Nipple Cone

strong interest in continuing to fit the Rose K2 NC lens.

Simple, systematic fitting

Fitting contact lenses for irregular corneas can be a challenging task for any eye care professional. The Rose K2 family of

lenses allows easy, simple, systematic fitting. In fact, following the manufacturer's fitting guidelines, you can achieve a successful fit in about 90% of cases.

Miguel Romero-Jiménez studied optics and optometry at the Complutense University of

Madrid. He specializes in contact lens fitting, particularly for irregular corneas, keratoconus and other corneal ectasias. He is pursuing a PhD at the University of Minho in Braga (Portugal) in the field of contact lens fitting for keratoconus.

Marking 60 Years of Contact Lens Manufacturing in Japan

Highlights of a rich history.

In 1951, Kyoichi Tanaka invented the first corneal contact lens in Japan. Today, Menicon, the company Mr. Tanaka founded, is one of the top five contact lens companies in the world. I had the honor of being hired by Chairman Tanaka in 1988, and I have had many opportunities to work directly with him over the years. I am pleased to share some of the highlights of Menicon's history with you on the occasion of the company's 60th anniversary.

Craftsman and inventor

Born in 1931 in Nagoya, Japan, Kyoichi Tanaka grew up during War World II. He was just a teen-ager when the war ended and his country began recovery efforts. Kyoichi's first job was as an apprentice at a popular eyeglass shop in Nagoya. He gained a reputation among his clients,

both Japanese locals and U.S. military personnel stationed in Nagoya, as a craftsman of custom-made eyeglass frames.

In 1950, one of Kyoichi's clients, the wife of the commander of the U.S. Armed Forces in Nagoya, told him she had just purchased a pair of the new contact lenses from America. Kyoichi had heard about contact lenses being developed in the United States. When he asked the woman if he could see her new lenses, she refused, stating how expensive and irreplaceable they were. From that moment, Kyoichi made up his mind to make his own contact lenses. Within a year, he

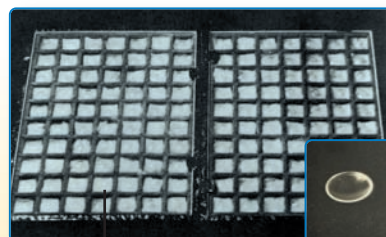
had created Japan's first corneal contact lens from material he developed, lathed and polished himself, often testing them on his own eyes.

From this humble beginning, Menicon's mandate was born: To provide the highest level of safety for its customers. The guiding directives that drive the company today include taking on new challenges and fostering creativity, which in turn, lead to innovation.

Kyoichi Tanaka's dedication to craftsmanship, safety and innovation was well-known among his early clients at the eyeglass shop in Nagoya, and these qualities endure today in the company he founded 60 years ago.



Kyoichi Tanaka and the U.S. officer's wife who would not show him her new contact lenses from the United States. He decided to design his own contact lenses.



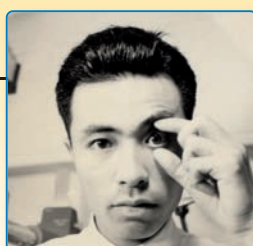
At age 20, Kyoichi Tanaka invented Japan's first corneal contact lenses.



1950

1951

Mr. Tanaka tested his early lens designs on his own eyes.



Mr. Tanaka's notes resemble DaVinci's famous notebooks.



Comprehensive product portfolio

Today, Menicon remains a fully integrated company that encompasses research and production of soft and GP contact lenses and lens care products. Its flagship products include:

- **Menicon Z**, the world's most permeable GP contact lens and the only GP lens to be approved in Europe, Japan and the United States for up to 30 days of continuous wear
- **PremiO** and **PremiO Toric** silicone hydrogel lenses for 2-week replacement
- **Rose K** lenses, the world's most-prescribed contact lens designs for keratoconus and irregular corneas

- **Progent**, the most effective protein remover for GP lenses

The company continues its global expansion, most recently acquiring NKL in the Netherlands, David Thomas Contact Lenses Ltd. in the United Kingdom, and Lagado Corp. in the United States.

Looking toward the future

Menicon's dedication to research and customer safety has led to the development of two exciting new products. First is Flat Pack Technology for daily disposable contact lenses. This innovative new packaging is 2 mm deep compared to the traditional blister pack, which is 6 mm deep. The second is a GP lens for quarterly replacement, which will in-

crease the safety of conventional GP lens wear.

We at Menicon will continue our efforts to provide the highest level of safety, taking on new challenges to create superior products as our founder and chairman Kyoichi Tanaka did 60 years ago.

To read Chairman Kyoichi Tanaka's fascinating story online, go to: <http://www.menicon.com/corporate/images/stories/pdf/chairmans-biography.pdf>



In 1988, Menicon GmbH was established in Germany.



Menicon acquired Lagado Corporation. Shown left to right: Jonathan Jacobson, Chairman Tanaka, Bill Hoffman, and Toshio Matsushima.

1976

2009

2010



Menicon Europe was established in Paris, France. Shown left to right are: Marie-Angèle Soto, Pierre Monteil and Anne Falcot.



Menicon acquired David Thomas Contact Lenses Ltd. Shown left to right: William Thomas, Toshio Matsushima.

PERSONAL PROFILE

Behind the Scenes at Menicon

In this issue, we interview Pierre Monteil,
Managing Director, Menicon Holdings Europe.



Please tell us about your background and education.

I grew up near Paris, and after earning my secondary-school diploma, I went to live with my grandparents in Paris. With good grades in mathematics and physics—and influenced by my grandfather, a graduate of the largest technical university in Italy—I decided to pursue a degree in engineering. I attended École Supérieure de Physique et de Chimie Industrielles (ESPCI) in Paris, a physics and chemistry engineering college, which is a member of the ParisTech group of Grandes Écoles. During my engineering studies, I spent 6 months in the chemical engineering department of the Chicago (USA) Institute of Technology. I returned to France to marry my wife (also an ESPCI graduate) and to fulfill my military obligation, serving a year in the Defense Science Department.

How did you become involved in the optics/eye care industry?

My first position was with Essilor. The company was seeking an engineer with a background in optics and chemistry, a strange mix but meaningful for contact lenses. They had a specific goal: Make a soft multifocal contact lens that works! I held several positions within Essilor, ranging from project leader to R&D manager. I was also involved in marketing and the reengineering of a US subsidiary. I had worked 14 years on these multifocals when Essilor sold its contact lens business to Ocular Sciences, which is now part of Coopervision.

What is your current role with Menicon, and what are your immediate and long-term goals?

I joined Menicon more than 7 years ago



Mr. Monteil at Nijo castle in Kyoto, Japan.

as part of a European expansion plan. I could not believe I had been in this industry for so many years without really looking at the RGP market and its potential! Menicon's goal is to become a global leader by providing superior vision to the entire world with a complete and unique portfolio of products, ranging from gas permeable lenses and specialty lenses to silicone hydrogel soft lenses and daily disposables. As a privately owned Japanese company, we tend to prioritize long-term with a strong culture for innovation, which was inherited, so to speak, from our founder.

What is Menicon doing to expand its export business?

Menicon is looking for long-term partners that are willing to promote the same core values as Menicon and to help create what I would call "Centers of Excellence," promoting contact lenses in all parts of the world. Menicon produces a wide range of new and innovative products that should raise the interest of practitioners as never before.

What are some of these innovative products?

Some people say the contact lens industry is a mature market, driven by commodity, which seems to imply there are few innovations. This is certainly the wrong assessment, as contact lenses are

Pierre Monteil's Caponata

INGREDIENTS:

- 2 eggplants
- 1 pound zucchini
- 1 pound tomatoes
- 1 white onion
- 3 bell peppers (red, green and yellow for color contrast)
- 2 cloves garlic
- Basil
- 2 tablespoons sugar
- White (balsamic) vinegar
- Salt, pepper, or better, piment d'Espelette (chili pepper)

PREPARATION

The trick is to have enough patience to prepare all of the vegetables! And to obtain the sweet and sour taste that you like.

Eggplants: Trim both ends (do not peel), cut in half and remove most of center part. Dice into cubes (pretty much the size of RGP blanks) and pan fry in olive oil.

Zucchini: ¼" slices with bevels (!) on both sides. Pan fry in olive oil.

Bell pepper: Use a gas torch (exercise care) to remove the skin. Then open longitudinally. Remove all white parts inside and make many thin longitudinal slices. Pan fry in olive oil

Onion: Peel, dice and pan fry.

Tomatoes: Blanch, peel, seed and chop.

Stew all ingredients together, add sugar and vinegar, garlic, salt, pepper to your taste. Add basil. Eat at room temperature.

Wonderful served with a soft boiled egg (approximately 6 min.) on top.



made from a variety of different materials, all of which behave somewhat differently on the eye. The excitement over silicone hydrogel materials is well deserved—after all, Menicon had the first patent on silicone hydrogel—but this is not the only option. Menicon is also introducing new and innovative packaging (see the April 2010 issue of *Horizons* for more on Flat Pack Technology). Menicon definitely wants to be a key player in this mass market segment, but we cannot forget our history and the foundation for Menicon's reputation.

Another area of innovation lies with the lathing technology, which makes it possible to produce custom 3-D lenses with any choice of suitable material, hydrogel, silicone hydrogel or GP, to best match the shape of the cornea. Our sister companies, NKL and David Thomas Contact

Lens, manufacture these types of lenses on a large-scale basis.

Please tell us about Easyfit software.

Easyfit software, which can be used with almost any corneal topographer, was developed as a high-tech fitting tool to help practitioners match the proper contact lens to a patient's eye, whether it is a simple sphere, a toric, a multifocal, an orthokeratology lens, or any combination of those designs. The software accounts for overrefraction and sends the lens order to the manufacturer via e-mail. If the technology allows it, why not make an individual lens for an individual eye?

Easyfit software will enhance practitioners' technical skills, making custom fitting almost effortless, so that they can offer a higher level of expertise and customer service in a world where patient retention

becomes more difficult every day. Easyfit is currently available in Germany, France and the Netherlands, and will soon be introduced in many other markets around the world.

Please tell us about your life outside the workplace.

My family is my highest priority, and I enjoy taking an evening break with my three daughters, ages 18, 11 and 8. (I can work again afterwards, if necessary!) During summer holidays, we like to go to the islands to hike and see volcanoes, thanks to my wife's interest in geophysics. In the winter, we enjoy skiing in the Pyrenees. I like to cook occasionally (I took a few classes because I am not able to invent here), and my Italian caponata became instantly famous, at least within the family. (See page 6 for Mr. Monteil's caponata recipe.)

MENICON IN THE NEWS

Dr. Santodomingo Delivers Irving Fatt Memorial Lecture BCLA honors Menicon's Global Professional Relations Manager.

The Irving Fatt Memorial Lecture of the British Contact Lens Association is awarded to a postgraduate in the field of contact lenses or anterior eye, who has completed a PhD, a postdoctoral degree or an MSc in the United Kingdom within the last 5 years and continued his or her research in private practice, hospital practice or academia. This year's lecture was awarded to Jacinto Santodomingo, PhD, MSc, MCOptom, FBCLA, FAAO, Global Professional Relations Manager, Menicon Co. Ltd.



BCLA President Dr. Shelly Bansal congratulates Dr. Jacinto Santodomingo, who delivered the Irving Fatt Memorial Lecture at the 2011 meeting.

Dr. Santodomingo, a native of Madrid, Spain, received his BOptom in optics and optometry from the University Complutense of Madrid, Spain. He went on to receive his MSc from Bradford University and his PhD from Aston University in the UK. Dr. Santodomingo joined Menicon in

2005 and currently is the Global Professional Relations Manager, based in Madrid. In his lecture, he discussed results from the Myopia Control With Orthokeratology Contact Lenses in Spain Study. (For highlights of this study, see the May 2011 issue of *Horizons*).

c a l e n d a r

SEPTEMBER

- 5-8 Brazilian Ophthalmology Conference, Porto Alegre, Brazil
- 8-11 ICCLC, Sydney, Australia
- 9-11 ECLSO, Istanbul, Turkey
- 10 Rose K lecture, Dr. Paul Rose, ECLSO, Istanbul, Turkey
- 21-24 Vision Expo West, Las Vegas, USA
- 23 Rose K lecture, Dr. Paul Rose, Euro Keratocônes, Bordeaux, France

OCTOBER

- 6-9 CLMA, LaJolla, USA
- 12 Rose K lecture, Dr. Paul Rose, AIIMS, New Delhi, India
- 12-15 AAO, Boston USA
- 19 Rose K lecture, Dr. Paul Rose, Jaslok Eye Hospital, Mumbai, India
- 20 Rose K lecture, Dr. Paul Rose, Shroff Eye Hospital, Mumbai India
- 23 GPLI Clinical Symposium, Chicago, USA
- 23 Rose K lecture, Dr. Paul Rose, Colombo, Sri Lanka

NOVEMBER

- 23 BCLA Pioneers Lecture, London, UK

JANUARY 2012

- 26-29 Global Specialty Lens Symposium, Las Vegas, USA





PHOTO GALLERY

SFO Meeting, Paris



Dr. M.B. Mekki and Dr. M.A. Mokhtari at the Menicon booth during the 2011 meeting of the French Society of Ophthalmology.

X-Alps Competition 2011



Menicon once again sponsored Kaoru Ogisawa in the Red Bull X-Alps competition, which tests athletes' skill and endurance as they paraglide and hike across the Alps from Salzburg, Austria, to Monaco.



SOBLEC 2011, Curitiba, Brazil



Dr. Fernando M.G. Matos and Juan Céspedes chat during the 2011 meeting of the Brazilian Society of Contact Lenses, Cornea, and Refractometry.

Menicon France Symposium, Cannes



More than 200 eye care professionals attended Menicon France's Symposium in Cannes, France, which featured sessions on contact lens fitting trends by targeted group (children, presbyopes, keratoconus patients) and discussions of orthokeratology and myopia control. New products, such as PremiO Toric, the Keratron Piccolo topographer, EasyFit software and the Rose K2 NC were also showcased.

ISCLR Meeting 2011



Dr. Dwight Cavanagh (left), outgoing President of the International Society for Contact Lens Research (ISCLR), and Toshio Matsushima, Senior Executive Officer of Menicon Company Ltd., at the society's biennial meeting held recently in Napa (USA).