

# hORIZONS



## MYOPIA CONTROL

By Pauline Cho, PhD, FAAO, FBCLA



# Using Contact Lenses to Control Myopia Progression

Evidence is mounting to support the use of orthokeratology for myopia control in children.

At the Centre for Myopia Research, part of The Hong Kong Polytechnic University's School of Optometry, we conduct myopia research using a multidisciplinary approach (clinical, genomic and proteomic). For the past several years, our research team has been studying myopia control in children using orthokeratology. This article recaps findings from some of our research, as well as studies conducted by others.

## LORIC and CRAYON

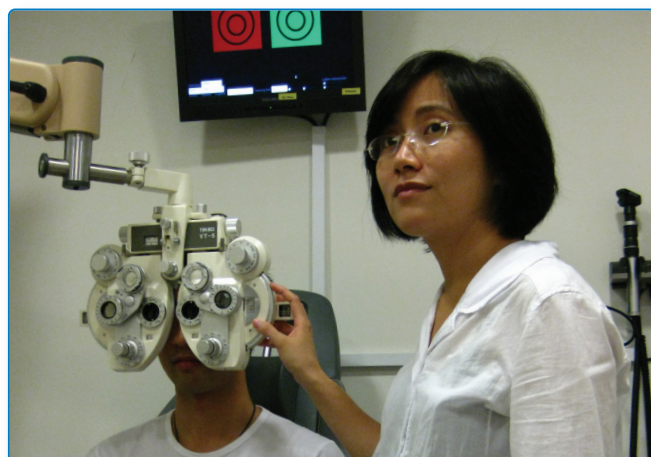
In 2005, we published results from the Longitudinal Orthokeratology Research in Children (LORIC) study in Hong Kong. In this pilot study, we found that axial length growth in children wearing orthokeratology lenses slowed by 46% compared with that of children wearing spectacles. The LORIC study's result was confirmed in the Corneal Reshaping and Yearly Observation of Nearsightedness (CRAYON) study in the United States by Walline and coworkers at The Ohio State University.

## ROMIO

The Retardation of Myopia in Orthokeratology (ROMIO) study, which began in 2008, recruited 77 children, 7 to 10 years old, with myopia not more than 4.50D. In this randomized, single-masked study, subjects were assigned to treatment with either orthokeratology or spectacles, and the examiners were masked with respect to axial length measurements. After 2 years of monitoring, the axial length of subjects in the orthokeratology group had increased by 0.36mm compared with 0.63mm for those in the spectacle group. Orthokeratology had slowed axial length growth by 43%.

Based on the findings of this study, we now confirm that orthokeratology retards axial length growth and controls the progression of myopia in children. At the end of 2 years, the increase in myopia (axial length equivalent) was 1.00D in the orthokeratology group and 1.75D in the spectacle

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► Dr. Pauline Cho recently discussed her work in the ROMIO and TO-SEE studies, both funded by Menicon, at a press conference at The Hong Kong Polytechnic University's School of Optometry.

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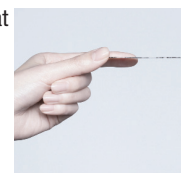
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group. The 2-year results will be published soon in a peer-reviewed journal.

### TO-SEE

The Toric Orthokeratology–Slowing Eyeball Elongation (TO-SEE) study examined the potential of toric orthokeratology lenses to reduce astigmatism and slow myopia progression. We recruited 37 children, 6 to 12 years old, with myopia not more than 5.00D and astigmatism between 1.25D and 3.50D. This

study concluded that toric orthokeratology lenses reduced astigmatism by 79% after 1 month of lens wear. At the end of the 2-year period, the increase in axial length was 0.31mm, which was also significantly slower compared to axial length growth in the spectacle wearers in the ROMIO study.

### Safe, effective myopia control

Thanks to advancements in science and technology, the lens designs and materi-

als for orthokeratology have greatly improved. Highly oxygen permeable lenses with enhanced corneal reshaping potential bring convenience to wearers in their daily lives. Orthokeratology is a reversible treatment, which can be stopped at any time. With the proven results in refractive error correction, myopia control and astigmatism reduction, it represents a safe and effective solution for myopic and astigmatic adults and children.

## CENTER OF EXCELLENCE

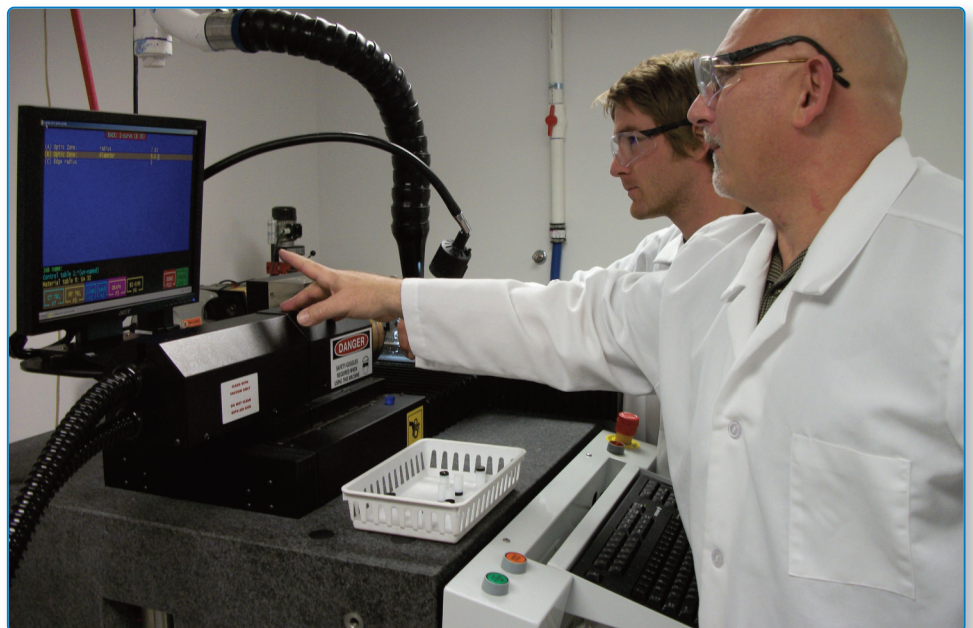
# New Material Science Lab Opens at Lagado in Englewood, Colo., USA

State-of-the-art manufacturing facility to serve as resource for customers, vendors and employees.

The renovation and expansion of Lagado Corporation has been completed, and the Material Science Laboratory (MSL) is now fully operational and ready to receive visitors. The MSL, which features state-of-the-art manufacturing capability for custom soft and GP lenses, is destined to become a valuable resource for Menicon's laboratory partners around the world.

Led by Tony Parrinello, a seasoned industry professional with more than 25 years of contact lens manufacturing experience, the MSL will:

- serve as a center of excellence for customers, vendors and employees to learn about and see Menicon's manufacturing technologies
- provide customers with hands-on support in custom soft and GP lens manufacturing and the use of lens design software
- handle product release testing for soft and GP materials produced in the facility



► Robert Vawter (left) and Tony Parrinello calibrate the Material Science Lab's new ALM lathe.

- provide real-time feedback on manufacturing characteristics of soft and GP materials under development.

Although the paint is barely dry in the MSL, it has already started to draw the attention of customers from around the world, who are excited to share their thoughts and ideas with like-minded professionals.

"By making this considerable capital investment, Menicon America is demonstrating its strong commitment to the custom contact lens industry for many years to come," said Mark Allen, Vice President of Manufacturing.



# Popular Program Revolutionizes Contact Lens Sales and Care in Japan

This convenient, cost-effective method for patients to purchase their lenses also emphasizes the importance of professional care.

Although contact lenses are medical devices that must be prescribed by licensed professionals, advances in manufacturing technology and the ability to mass-produce high-quality lenses have led to their commoditization. As a result, the business of contact lenses is often subject to the same challenges as any commodity, such as price wars, Internet sales and bait-and-switch schemes. Affordability is a welcome byproduct of high-tech production methods, but in the case of contact lenses, this trend tends to de-emphasize the critical role of eye care professionals in ensuring safe, healthy lens wear.

The Menicon Eye Life Support (MELS) Plan is a carefully devised program that balances the commoditization of contact lenses with the need for professional care. Launched in Japan in 1999,

this revolutionary program was conceived and directed by President Hidenari Tanaka and a think tank within Menicon Co. Ltd. Here is a brief description of how the program works.

## Benefits for patients

To join the MELS Plan, patients sign a contract, pay a small one-time membership fee and then begin paying a monthly fee for their lenses, which is automatically debited from their bank accounts. For an additional monthly fee, patients may also have lens care solutions delivered to their homes. See Table 1 for a breakdown of fees converted from Japanese yen (82 yen = US\$1.00).

All types of lenses — standard and premium GPs, hydrogel and silicone hydrogel 2-week replacement, soft monthly

replacement and daily disposable lenses in spherical, toric and multifocal designs — are available through the MELS Plan. Patients may even change from one modality to another. Lenses are dispensed at the clinic after examination at 3-month, 6-month or yearly intervals, depending on the modality.

Members of the MELS Plan are guaranteed a full year's supply of lenses, so if lens powers change or lenses are damaged, they can obtain a free replacement at any MELS doctor's clinic or optical shop. Lost GP and conventional soft lenses are replaced at a reduced fee.

Another benefit of being a MELS Plan member is that patients can visit any of the 1,500 MELS doctors' offices or optical shops in Japan to receive lenses in an emergency. In fact, during the earthquake and tsunami last year in northeast Japan, the MELS database was able to supply lenses to patients when they were unable to visit their usual MELS offices.

## Improved compliance

Compliance is a key benefit for patients and doctors within the MELS Plan. Members receive reminders to return for their annual eye examinations, and lenses are dispensed only after the examination. Patients wearing frequent replacement or daily disposable

**TABLE 1. MELS Plan At-a-Glance**

Product		Membership Fee	Monthly Fee					Lost Lens Fee (per lens)
			Lens Only			Care Plus Lenses		
			Both Eyes	One Eye		Both Eyes	One Eye	
2 week replacement	PremiO	\$38.41	\$26.89	\$17.93		\$37.13	\$28.17	No Charge
	PremiO Toric							
	Duo							
	Bifocal							
1 month replacement	Month Wear		\$23.05	\$15.37		\$33.29	\$25.61	
	Month Wear Toric							
Daily Disposable	Menicon 1 Day		\$56.34	—		—	—	
GP lens	Tinu	\$64.02	\$26.89	\$17.93		\$37.13	\$28.17	\$64.02
	Menicon Z	\$64.02	\$23.05	\$15.37		\$33.29	\$25.61	\$64.02
	Eyest							
	Menicon EX							
Conventional Soft lenses	Soft S	\$64.02	\$23.05	\$15.37		\$33.90	\$25.61	\$64.02
	Soft 72							
	Soft 72 Toric							
	Soft MA							
Bifocal GP	Menifocal Z		\$42.26	\$28.17		\$52.50	\$38.41	\$128.05

► For a small one-time membership fee and a nominal monthly fee, patients receive their contact lenses at prescribed intervals. For an additional fee, they may add lens care products to their plan.

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soft lenses are not tempted to over-wear them, because they receive new lenses at their next visit before they use their last pair of lenses.

Compliance among GP lens wearers is also improved when patients join the MELS Plan. A study performed at a MELS doctor's clinic found that the average MELS GP lens wearer replaced his lenses, on average, every 11.7 months, as opposed to non-MELS patients who replaced their lenses every 37.9



months.<sup>1</sup> In addition, patients enrolled in the MELS Plan were more likely to see the doctor on a regular basis.

#### Additional benefits for practitioners

The MELS Plan also offers some business benefits to practitioners. The membership fee and a percentage of the monthly fees are paid to the MELS office/shop where patients are supported. In addition, because Menicon administers the program, practitioners do not have to purchase and stock products. This saves administrative costs and allows

them to concentrate on providing professional services to their patients.

#### Popular program expanding

Menicon's focus in Japan is to continue to expand the number of MELS Plan members. All in all, the MELS Plan has made Menicon lenses more affordable for patients, while putting them within a system that strongly encourages regular eye examinations and discourages overwear of lenses. It represents a win-win-win for Menicon, doctors and patients.

#### Reference

1. Shimamoto S, Ariwaka Y. Compliance with rigid gas permeable contact lens wear among clinic members and non-members. *J Jpn CL Soc.* 2010;52;194-200.

## LENS CARE

# Menicon Assumes Distribution of SOLOCARE AQUA® in Canada and the EEA

Company takes a decisive step toward a larger presence in the soft lens and lens care market.



Through an exclusive partnership with Eye Shelter SA, the Menicon group has begun marketing the SOLOCARE AQUA® Lens Care System in Canada and the European Economic Area. This new relationship will en-

hance Menicon's brand awareness and provide a wider distribution base for its existing soft lens products and future soft lens launches.

The SOLOCARE AQUA® Lens Care System includes a multipurpose soft lens solution and a unique antimicrobial lens case. SOLOCARE AQUA® solution, which was specifically formulated for use with silicone hydrogel material, has a proven track record as one of the safest and most convenient soft lens care solutions. Key ingredients include provitamin B5 (dexpanthenol), a comfort agent that creates a barrier of moisture around the lens, and sorbitol,

a humectant that absorbs and binds moisture to the lens. Together, these agents create the HydroLock® effect that locks in moisture and improves hydration for all-day comfort. SOLOCARE AQUA® brings additional safety benefits with its MicroBlock® lens case, which is impregnated with antimicrobial silver ions to kill bacteria on contact and reduce biofilm buildup. This system also offers a convenient 5-minute "express" cleaning/disinfecting process.

"With its high standards in comfort, safety and quality, SOLOCARE AQUA® is a perfect fit with Menicon's prioritization of eye health, safety, and innovation," said Esther da Silva, Head of Global Marketing, Soft Division. In addition, David Moreira, Vice President of Marketing for Menicon America Inc., noted, "This is a unique opportunity for Menicon. It will allow us to strengthen our presence in Canada and Europe and help us establish a strong user base for all of our products."

## calendar



### MAY

- 6-10 ARVO, Fort Lauderdale, USA
- 10-12 EFCLIN, Budapest, Hungary
- 24-27 BCLA, Birmingham, UK

### JUNE

- 9-10 EurOK, Madrid, Spain
- 27-July 1 AOA Optometry's Meeting, Chicago, USA

### JULY

- 6-8 Orthokeratology Society of Oceania, Gold Coast, Australia

### SEPTEMBER

- 5-8 International Vision Expo West, Las Vegas, USA
- 7-12 ISCLS, Ashford, UK
- 14-16 ECLSO, Nice, France



## PERSONAL PROFILE

# Behind the Scenes at Menicon



In this issue, we interview William Thomas, who recently retired as Managing Director of David Thomas Contact Lenses Ltd.

### **Please tell us about your background.**

I was born and raised in south London. As a youngster, I had varied interests from chess club to cars and rallying. I learned to drive a car as soon as legally possible and bought my first car for £25 GBP. To pay operating costs, I took part-time gardening jobs, which turned into a full-time business during school holidays.

After graduating from secondary school, I hadn't quite settled on a career, so I pursued a business degree at Croydon College in London. This appealed to me because the syllabus was broad, covering law, accounting, statistics, administration and many other aspects of business. Little did I know how useful these courses would be later in life.

After college, I joined an assurance company in London, working my way up from management trainee to assistant manager of the new business department.

### **What prompted you to join your father's company?**

My father was managing director of a contact lens company that was acquired by a large pharmaceutical firm. A year later, he found himself without a job. After considering various business options, he decided to capitalize on his experience with contact

*To this day, I strongly believe that to run a business successfully, you should have a thorough knowledge of what makes it tick. ... From my experience on the production line, I realized DTCL would be successful if we always produced lenses to the highest standard and delivered them quickly to our customers.*

lenses and start his own company. In 1972, he founded David Thomas Contact Lenses Limited (DTCL).

I was eager to join DTCL from the beginning, as I had decided a career in assurance was not what I wanted, but it was deemed prudent that I keep my current job to ensure a steady income while the company was getting started. When we were confident that DTCL would be successful, I joined the company, and the rest, as they say, is history.

### **You worked on the production line for a time. Tell us about that experience.**

I had always intended to work on the administrative side of the business, but I realized that if I was going to help my father run the business, I needed to learn about manufacturing contact lenses. To this day, I strongly believe that to run a business successfully, you should have a thorough knowledge of what makes it tick.

After learning how to manufacture PMMA lenses (gas permeable lenses had not been invented in 1973), I worked with the early HEMA soft lens materi-



Mr. Thomas received a special gift from Menicon at his 60th birthday celebration.

als. At that time, soft lenses were lathe cut, and I wanted to make sure we could produce these new lenses.

On the production line, I often had to work with lenses that needed adjusting or repowering. I also dealt with technical queries, which meant I had to hand-write many letters on a daily basis, as computers and word processors had not yet been invented. Taking the time to write to customers to provide technical support helped build the business and customer loyalty.

From my experience on the production line, I realized DTCL would be successful if we always produced lenses to the highest standard and delivered them quickly to our customers. I also realized that to do this and stay ahead of the competition, we had to constantly invest in the latest lathing and manufacturing technology.

### **What sets DTCL apart from other companies in the market?**

Our ability to manufacture GP and soft specialty lenses sets us apart from the competition. Over the last few years, we have concentrated on this aspect of our product range and have expanded our customer base beyond the United Kingdom. We now export our lenses to many countries throughout the world.



Directors of DTCL. Left to right: Graham Avery, Peter Rolfe, Doreen Browne, William Thomas and Kevin Mitchell.

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Inside the cabin of the narrowboat Willow.



Lesley Thomas steers Willow along a canal.



Mr. Thomas with his wife, Lesley, and their children, Daniel and Kate.

I am also proud of the very capable team of people I have led over many years. They are our greatest asset. Their diverse skills make a strong team that is focused on meeting our customers' needs.

### **How has joining Menicon benefited DTCL (and vice versa)?**

There comes a point in a company's development when it can benefit from being part of a larger and stronger organization with greater resources. To continue to invest in the latest machinery at the same pace we maintained in the past, I knew we needed to be part of a larger organization, but I also wanted to be sure we joined a company with the same values as DTCL. Menicon, which is also a family-founded company, has built a well-deserved reputation for producing high-quality products. Access to its expertise has already resulted in tangible improvements to our production, and I am confident they will continue.

DTCL produces a wide range of specialty lenses in a variety of materials

thanks to a versatile and flexible production line. Our specialty products will strengthen the range of lenses that Menicon can offer its customers.

Menicon owns the design rights to Rose K, the most-prescribed lens for keratoconus patients throughout the world. The company now also owns a leading manufacturer and distributor of these products worldwide. DTCL's expertise with this design will allow Menicon to strengthen its manufacturing base for this lens in many countries with the potential for new manufacturers and distributors.

### **What does the future hold for DTCL?**

DTCL will continue to be run by codirectors Graham Avery and Kevin Mitchell, ably assisted by Peter Rolfe and Doreen Browne. It will become the center of excellence for the Rose K brand and will expand this aspect of production to supply other Menicon companies. I am confident the company will continue to grow and become even stronger as part of Menicon.

### **What activities are you looking forward to in retirement?**

For many years, my wife and I have owned boats that are suitable for navigating the English canal system. These narrowboats, which were originally designed to carry cargo during the 18th, 19th and 20th centuries, are only seven feet wide, allowing them to pass through the narrow locks. My wife and I want to cruise the 3,000 miles of canals and navigable rivers

in Great Britain while we are still fit enough to do so. We have already cruised some of the canal system, but with only two weeks' holiday at any one time and a maximum speed of three miles per hour, we have been limited in the areas we could explore. Extended cruising should allow us to go much farther afield and see the beautiful English countryside by the back door.

We also want to visit the many lovely countries throughout the world and have time to enjoy them without having to worry about going back to work on a Monday morning.

To stay fit, I have been jogging for more than 20 years. I have completed two London Marathons and very much enjoy running in the fresh air all year round. I hope that I will have more time to keep running on a regular basis, and I still entertain the thought of training for one more London Marathon.

### **Please share any parting thoughts.**

I want to take this opportunity to wish all of my colleagues and friends at DTCL and in the Menicon group continued success for the future. Menicon is now a truly global company with a diverse range of products supported by talented people with a wide range of experience and expertise, and I am confident it will capitalize on these tremendous resources for many years to come.

Thank you for the support you have given me.



## Magic a Winner at Advertising Festival

World's thinnest daily disposable lens takes top honors in several categories.



Menicon Co. Ltd.'s Magic daily disposable contact lens, packaged in a unique flat-pack, won a Gold Award for best logo, package design and overall communication plan in the Design Lotus category at the Asia Pacific Advertising Festival (ADFEST) in Pattaya, Thailand. In addition to the Gold Award, Magic also won three Silver Awards, making it the most awarded product in the Design Lotus category.

Taken together, the four awards recognized Magic's unique design, creativity and functionality that provide new value, convenience and enjoyment. Also cited were Magic's integrated marketing approach, encompassing logo and package design, transit advertising, print advertising, product Web page and sales tools.

"It is an honor to receive such recognition of Magic's unique design features," said Steve Newman, Chief Technology Officer. "This technology enables Menicon to produce an innovative package design that is about 1mm thick, much less than that of traditional contact lenses."

Magic was launched at the company's Magic Store concept shop in Tokyo on Nov. 7, 2011.



► Magic's flat-pack design is unique in contact lens packaging.

► The Magic Store in Tokyo has attracted much attention as people learn more about this daily disposable lens in new, convenient packaging.

"It is an honor to receive such recognition of Magic's unique design features."  
Steve Newman, Chief Technology Officer



# PHOTO GALLERY

## Japanese Ophthalmological Society 2012



More than 6,000 people attended the Japanese Ophthalmological Society meeting held at the Tokyo International Forum in April. Menicon's Dr. Jacinto Santodomingo presented a paper on myopia control with orthokeratology contact lenses, and Dr. Jennifer Choo presented on orthokeratology and corneal susceptibility to microbial keratitis. Pictured from left to right: Dr. Santodomingo, Dr. Choo, and orthokeratology and specialty lens specialists Prof. Masao Matsubara, Dr. Takahiro Hiraoka and Dr. Tetsuhiko Kakita.

## Rose K Tours in Latin America



Left to right: Marcelo Soares, president of Mediphacos, the exclusive Rose K distributor in Brazil; Juan Céspedes, responsible for Menicon Latin America; and César Lipener, president of the Brazilian Society of Contact Lenses, Cornea and Refractometry.



Dr. Paul Rose (shown lecturing above) toured Brazil in late November 2011, educating contact lens practitioners in Recife, Belo Horizonte, and Sao Paulo.



Jonathan Jacobson, General Manager, Overseas Sales & Marketing, Menicon Co. Ltd. (fifth from left) and Dr. Paul Rose (sixth from left) with representatives of HK Centro Visual, exclusive Rose K distributor in Chile.

## International Vision Expo East 2012



Dr. Trusit Dave (second from left), founder of Optimed Ltd., discusses the educational value of i-Vue and CAPTIV8 at the Menicon booth at International Vision Expo East in New York, USA.

## COOC 2012



More than 1,000 doctors from 20 countries and regions attended the 12th International Congress of Ophthalmology and Optometry in Hangzhou, China, in late March. Left to right: Jonathan Jacobson, Dr. Jiang Jun, of FocuSee, Menicon's manufacturing joint venture partner in China, and Jackson Leung.

## William Thomas Retires



Toshio Matsushima (right), Senior Executive Officer, Overseas Sales & Marketing, Menicon Co. Ltd., congratulates William Thomas on his recent retirement as Managing Director of David Thomas Contact Lenses Ltd.