

www.eisotech.co.kr

Pioneer of Medical Laser

ISOTECH

will keep its proud for blood glucose monitor & medical laser
lancing system on basis of faith and responsibility



ISOtech
ISO TECH CO., LTD.

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☛ Greeting & Mission

Since 2003, our researchers exerted themselves for researching and developing the integrated unit that can sample blood with least pain and measure the blood sugar level. Our blood sugar tester is applied with most-advanced laser technology, and samples blood without a wound and pain, and measures the blood sugar level with the high accuracy and precision.

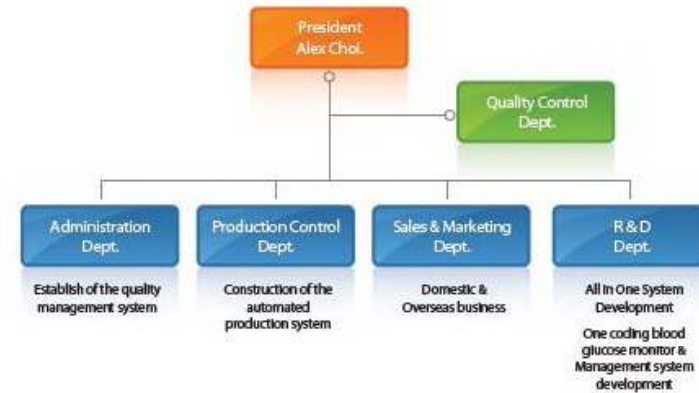
ISOTECH's Mission

Isotech regards human technology that minimizes the disharmony of a human and state-of-art technology as our core technology. Such human technology has started with our combined blood sugar tester that we developed world-first by adopting most-advanced laser technology. Our product is designed to retranslate hardware of technology in the words of humanism to implement true customer convenience and emotional satisfaction. We, Isotech will keep developing the diagnostic equipment that is superior to others and satisfies customer on the basis of human-tech and human-touch.



☛ Business Contents

• Structure



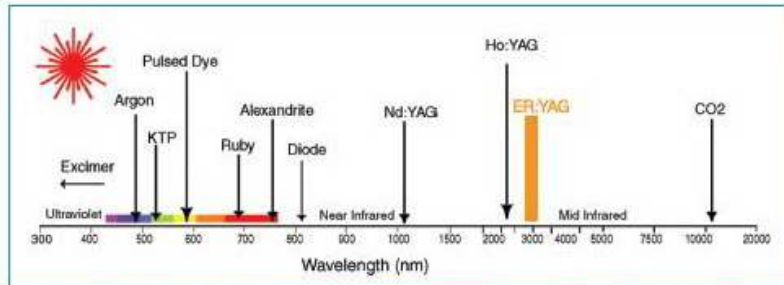
• Human Resources

R & D Dept.	<ul style="list-style-type: none"> • R&D Dept. Director • Firmware development team manager & professionals • SMPS power supply development & Hardware development • All in one strip development team manager & professionals
Quality Control Dept.	<ul style="list-style-type: none"> • Quality control team manager • KGMP & KFDA • CE & FDA (International Certification)
Production Control Dept.	<ul style="list-style-type: none"> • Production control team manager • Outsourcing contractors & materials & purchasing • Performance test
Sales & Marketing Dept.	<ul style="list-style-type: none"> • Marketing & Customers management • Forwarding • Domestic & Overseas business
Administration Dept.	<ul style="list-style-type: none"> • CFO • Accounting

❖ Laser Blood Collecting?

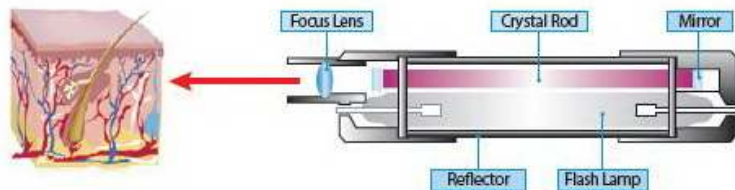
• Characteristics of Er:YAG LASER

- No harmful to human body
- Strong water containing power
- **Collecting blood from the skin without pain**



Wavelength 2940nm, Focus size: 0.1mm, Pulse Duration 250~300usec, 100~500mJ

• Principle of Laser Blood Collecting



Charging → Laser Radiation → Capillary Excitement → Bleeding

• Feature of Technology

- This system focuses a laser on a small part of skin and improves adherence between the laser generation part and the human skin to get rid of the psychological discomfort of patients who participate in blood collection.
- An adaptor that is attached very closely to the skin and a skin adhesive cap are attached to the tip of the Er:YAG laser generation part, and so primarily, it can get rid of the bad smell of burned skin, smoke and any dull sounds.
- An engineered plastic case prevents a the flash from being leaking outside.

• Merit of Laser Lancet

Needle Lancet	Laser Lancet
· Displeased pain by needle injection	· Less pain by Laser Perforation
· Skin insertion of steel lancet	· Free from fear of Lancet
· Long lasting time of pain	· Short lasting time of pain
· Long recovering time of wound mark	· Fast recovery of wound mark
· Sterilization needed with alcohol gauze	· Auto sterilization by high temperature(1300℃)
· Inconvenience of using needle	· Convenience usage by one-touch lancing

• Collecting Blood Process



Step1.
Open the INTERLOCK on the back side.

Step2.
Choose the appropriate Laser Level.

Step3.
Insert a Disposable Cap into the laser shooting hole

Step4.
Push down the Disposable & Push the Shoot button

Product : LASER DOC

• Blood Glucose Monitoring System with Laser Lancing Device

THE FIRST & ONLY ONE IN THE WORLD



- Free from fear of lancet(needle)
- Less pain
- Anti-contamination
- Auto sterilizing effect
- Quick recovering of wound mark & pain
- Rechargeable battery
- Speedy blood lancing & glucose measurement by single mach
- 0.5 μ l Blood volume, 5sec response



What is the Disposable Cap ?
: is designed to prevent infection and contamination by multi-user

LASER DOC is helpful for **Type-1** diabetics (baby & children, insulin-dependent patient), who need to measure his/her blood glucose **more than 3 times a day**.

• Specification

Blood	Capillary Whole blood	Laser Power Range	60~250mJ
Calibration	Plasma-equivalent	Laser Level Range	1~8
Assay Method	Electrochemical	Laser Wavelength	2.94 micrometers(Erbium:YAG)
Test Range	20~600mg/dl(1.1~33.3mmol/L)	Laser Spot Size	0.15mm
Measuring Time	5 seconds	Pulse Width	250 microseconds
Blood Volume	0.5 μ l	Repetition Rate	Single shot operations
Operation Temperature/Humidity	10~40°C (50~104°F) / 10~90%	Product Size	124 X 27 X 63(mm)
Transportation & Storage Temperature/Humidity	-10~50°C (14~122°F) / 10~90%	Weight	170g (Battery included)
Memory	250 Test Results	Battery	Rechargeable 3.7V Li-Ion
Average Display	7, 14, 30 days	Battery Lifetime	100lancing times per charging (based on level 4-5)

• HOW TO USE



1 | Insert the test Strip



2 | Open up the interlock



3 | Insert the disposable cap



4 | Push down the disposable cap with your finger and press the [shoot] button



5 | Apply the collected blood to the test strip



6 | After 5 seconds, blood glucose level appears on the LCD



Slim & Stylish Design



Convenient use of Disposable cap



Data Transfer to PC
Battery recharging Connector



Easy & Safe Strip ejection

Product : IS-SENSE

IS-SENSE in Combination with LGM can give our distributor more Options and Sales power : **COMPLEMENT, RITHGT OF CHOICE**



- Ultra Slim Size (Handy)
- Convenient & Portable
- Large LCD display
- Small amount of Blood (0.5 μ l)
- Fast Response (5 sec)

• Specification

Blood	Capillary Whole Blood	Operating Humidity	10~90%
Blood Sample	0.5 μ l	Strip Keeping Temperature	8°C ~ 30°C
Test Range	20~600mg/dl	Display Type	LCD
Measuring Time	5 seconds	Size	54 X 89 X 8(mm)
Correcting Method	Button	Weight	40g(Batteries included)
Meter Checking Method	Check Strip	Power	3V Li Battery(CR2032)
Test Memory	250 Test results	Battery Lifetime	2000 tests
Calibration	Plasma-equivalent	Assay Method	Electrochemical
Operating Temperature	10°C ~ 40°C 50 ~ 104°F	PC Connection	Connection to computer port



Slim ultra slim size
Speed up only 5 seconds speedy response
Small blood only 0.5 microliters blood

• HOW TO USE



Step 1. Insert the test strip into the meter.



Step 2. Apply blood sample to narrow top edge of test strip.



Step 3. Test result appears after 5 seconds.

Product : Desktop Laser Perforation & Blood Glucose Monitoring System



- Continuous laser perforation system
- Using disposable kit
- Using special medical center,
- Blood bank, Blood Analysis

Product : Pen Type Laser Perforator



- For Blood Analyzer
- For Homecare Monitoring
- Available to combine with all kinds of BGM
- Coordination with multi-purpose Diagnosis
- Pen type; One Touch Operation

Product : No coding card type blood glucose monitor



- No need to set the trip code
- Ultra slim size
- Convenient & Portable
- Large LCD display
- Small amount of blood(0.5 μ l)
- Fast Response (5sec.)

U-Glucose monitor built-in CDMA module



- Blood glucose monitor using CDMA module
- ISOTECH - ETRI (Korea Electronics & Telecommunications Research Institute) Joint development
- U-health care system
- It can send blood glucose level to doctor's mobile phone text message

Technical Status

ITEM	Competitiveness
Laser Lancing System	<ul style="list-style-type: none"> Er:YAG Laser Head construction, assembly technology Laser mirror coating technology Technology combining with blood glucose meter Laser Module assembly
Laser-applied Technology	<ul style="list-style-type: none"> Measurement of exploitation equipment by Laser Miniaturization of portable equipment Simplification of system composition
Maintenance	<ul style="list-style-type: none"> Technology of quality control based on GMP standards Management and maintenance of production by ISO13485 Standard

Patent Status

ITEM	Patent application & expected patent acquisition	Date
Patent	Design of the laser blood sugar level measuring apparatus registered	2006.03
Patent Permission	PCT application	2006.04
Patent Application	Patent application in the U.S, Europe	2007.06
Patent Permission	Glucose Monitor with Er:YAG Laser Lancing Device	2007.11
Patent Application	One touch laser lancing type blood glucose measurement device, strip and the method using it	2008.08
Patent Application	Patent application in China, Russia	2008.11
Patent Application	Small type laser lancing blood glucose monitor	2009.01

World Diabetics

Diabetes Prevalence

Diabetes Prevalence

- Diabetes is a serious condition for the individual and society. Its rapidly increasing global prevalence is a significant cause for concern.
- In 2007, it is estimated that there are 246 million people with diabetes in the adult population in the seven regions of IDF. In 2003, the total was 194 million.
- Type 2 diabetes constitutes about 85% to 95% of all diabetes cases in developed countries and accounts for an even higher percentage in developing countries. The epidemic nature of diabetes continues to affect ever-increasing numbers of people around the world while public awareness remains low.
- In 2007, it is estimated that 7.3% of adults aged 20-79 in all IDF member countries have diabetes. The Western Pacific Region and the European Region have the highest number of people with diabetes, approximately 67 and 53 million respectively. The highest rate of diabetes prevalence is to be found in the North American region (9.2%) followed by the European Region (8.4%).

Diabetes: a forecast

- The number of people with diabetes is expected to increase alarmingly in the coming decades. In 1985, an estimated 30 million people worldwide had diabetes; in 2000, a little over a decade later, the figure had risen to over 150 million. By 2025, the figure is expected to rise to 380 million.
- The prevalence of diabetes is higher in developed countries than in developing countries, but the latter will be hit the hardest by the escalating diabetes epidemic. Increased urbanization, westernization and economic development in developing countries have already contributed to a substantial rise in diabetes.
- The prevalence of diabetes in adults is projected to rise in both developed and developing countries. While diabetes is most common among the elderly in many populations, prevalence rates are significantly rising among comparatively young and productive populations in the developing world.

Use of Laser Lancing in a Clinical Setting

- Accuracy of blood glucose & Hematocrit determinations

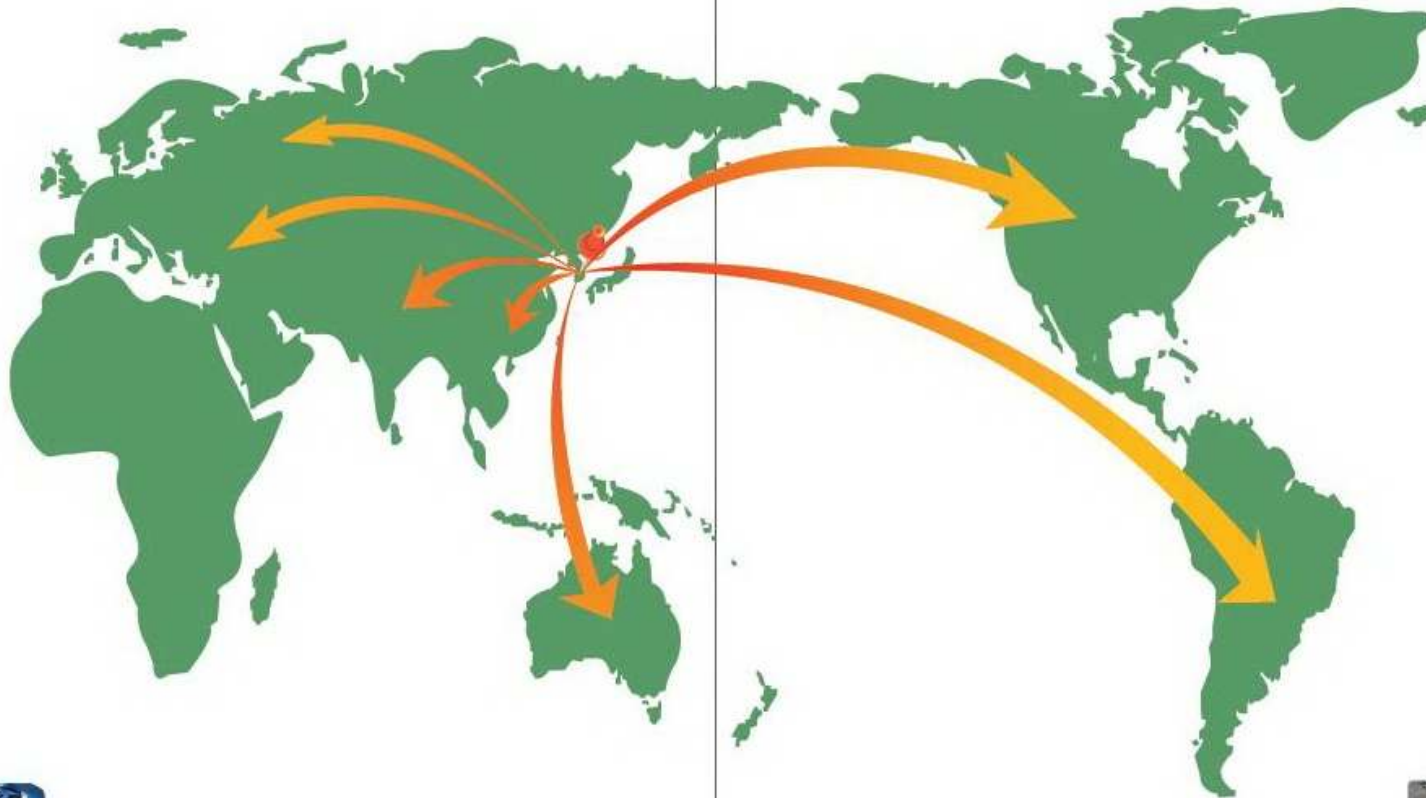
The first question that arose with regard to placing the Laser Lancet into clinical use was: "Are the results of measurements affected by using the Laser Lancet in any significant manner?"

→ ISOTECH sponsored a clinical study to investigate this question: Comparison measurement with blood sample collected by both Laser Lancet and needle lancet, using two different glucose meters.

The results of the study indicated that there is no significant difference of test result between using the Laser or Lancet for drawing blood for the measurement result of blood glucose and hematocrit.

Global NETWORK

• National Exclusive Partnership over the world



- AUSTRALIA · AZERBAIJAN · BANGLADESH · BRAZIL · CHINA
- IRAN · KUWAIT · LEBANON · MYANMAR · RUMANIA



- COLOMBIA · EGYPT · GERMANY · GREECE · INDONESIA · INDIA
- RUSSIA · SAUDI ARABIA · SRI LANKA · TAIWAN · TURKEY