

**ELDOR CSEN**

The Global Regional Anesthesia Distribution

**CSEN International Ltd.,**

P.O. Box 27476, Jerusalem 91273, Israel.

<http://www.csen.com/anesthesia>

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**We are dealing with...**

■ **Double Hole Pencil Point Spinal Needles**

■ **Epidural Needles**

■ **Sets for Continuous**

■ **Epidural Anaesthesia**

■ **Needles for Combined Spinal-Epidural Anaesthesia**

■ **Sets for Combined Spinal-Epidural Anaesthesia**

## **Eldor Spinal Needle Technique**

**This is an innovative device in which there are two round opposing holes at the tip.**

**The anaesthetic solution will flow out of these two holes into the the subarachnoid space at the direction of these two holes.**

**The Eldor Spinal Needle separates Dural fibres rather than cutting them to reduce the incidence of Post Dural Puncture Headache (PDPH).**

**A small bore Eldor Spinal Needle is inserted through an introducer until it pierces the Dural. Confirmation its placement in the subarachnoid space is when CSF is obtained through the hub of the Spinal needle. The local anaesthetic solution is then injected through the**

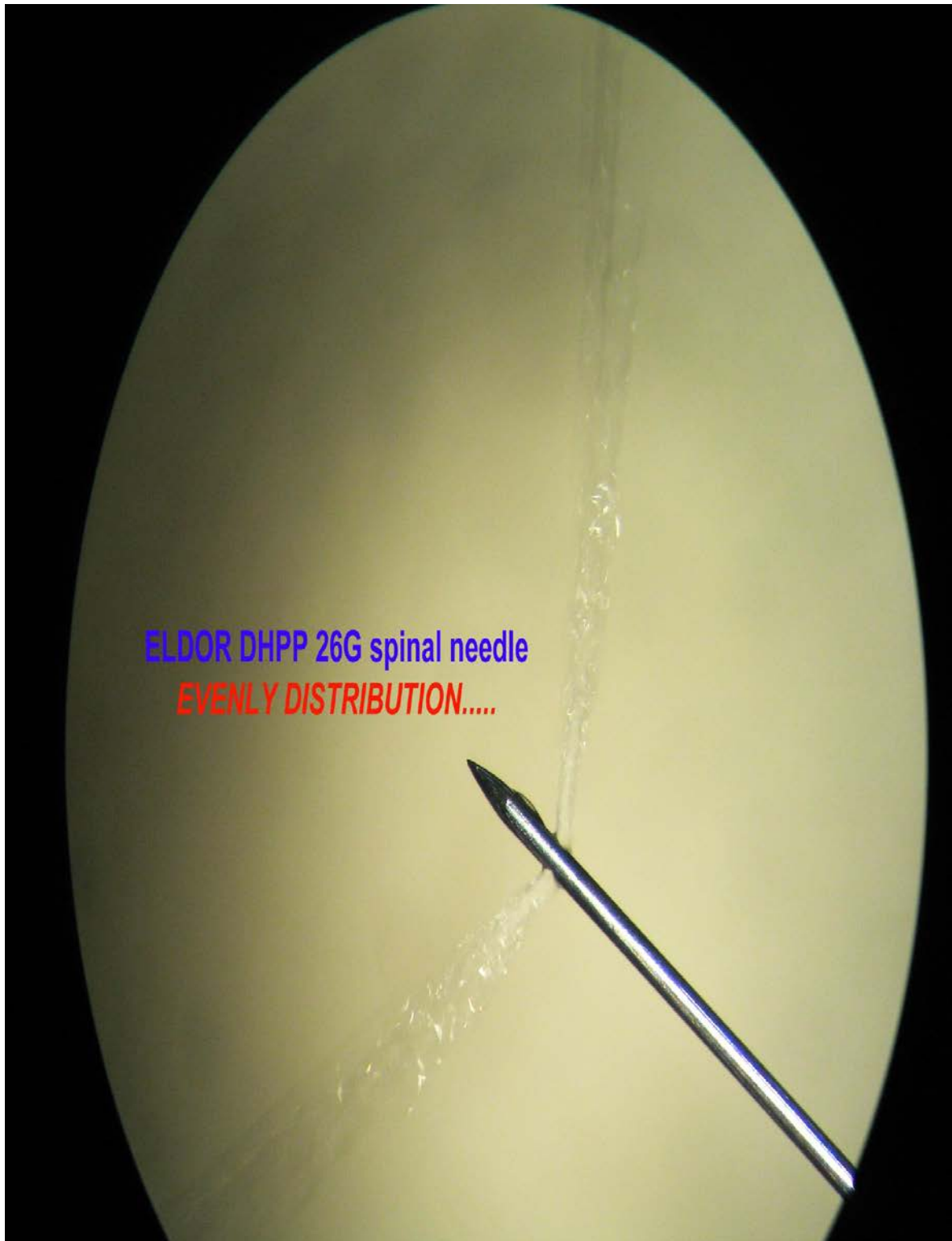
**Spinal needle into the subarachnoid space.**

**After the injection is completed the Spinal needle is withdrawn and the patient is positioned as required.**

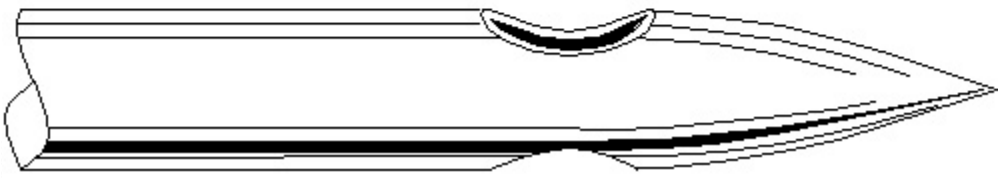
**Local anaesthetic solution injected into the subarachnoid space is exited through the two opposing holes positioned at the pencil point tip. The injection should be slow and gentle. The dose should be adjusted to every patient and to every operation.**

**The orientation of the Double-Hole is a factor for the administration of anaesthetic solution.**

# Eldor needle dispersion



# Why ELDOR Double Hole Pencil Point Spinal Needles...??



(Eldor described in 1996 a pencil point tip with two lateral holes opposite each other)

Because its the only spinal needle with double lateral holes which makes it most unique and innovative.

**The only Spinal needle with Double lateral holes, which minimizes the complications in Spinal anaesthesia , which reduces the incidence of Post Dural Puncture Headache (PDPH).**


**The area of the two holes is almost the same as of the single hole spinal needle's area, which enables more rapid CSF reflux.**

**ELDOR spinal needle Has a 3.5 Times Better CSF Backflow than the other spinal needles.**

**The ELDOR spinal needle Has 1.8 Times Less Backache than the other spinal needles available in market.**

**The ELDOR spinal needle Has a 5 Fold Increase in the immediate dispersal area Compared to the other spinal needles.**

**This advantage of the Eldor spinal needle over the other needles available in market can improve anesthetic spread, provide optimal anesthesia and reduces the risk of local anaesthetic toxicity.**



**Pushing drugs through syringe is easier and less resistance felt in compared to other needles.**

# **ELDOR Spinal Needle is Stronger than the other spinal needles...**

**The maximum force needed to bend the Eldor spinal needle was 9.65 lbs. compared to the maximum force of 9.16 lbs. needed to bend the other needles.**

**Despite the fact that the Eldor needle has two holes at the tip compared to one hole of the other needles the Eldor spinal needle is stronger than the other needles of the same gauge.**



## Improved patient care in spinal anaesthesia :

Much research into spinal anaesthesia has been directed towards the prevention and reduction of complications associated with the technique.

This product is the culmination of the technical development of spinal needles by Dr. Joseph Eldor, an eminent anaesthesiologist by profession who has developed the most innovative Double Hole Pencil Point Spinal Needle.

# Eldor Double Hole Design

## Advantages: Technical aspects

1. Twice the speed in CSF reflux.

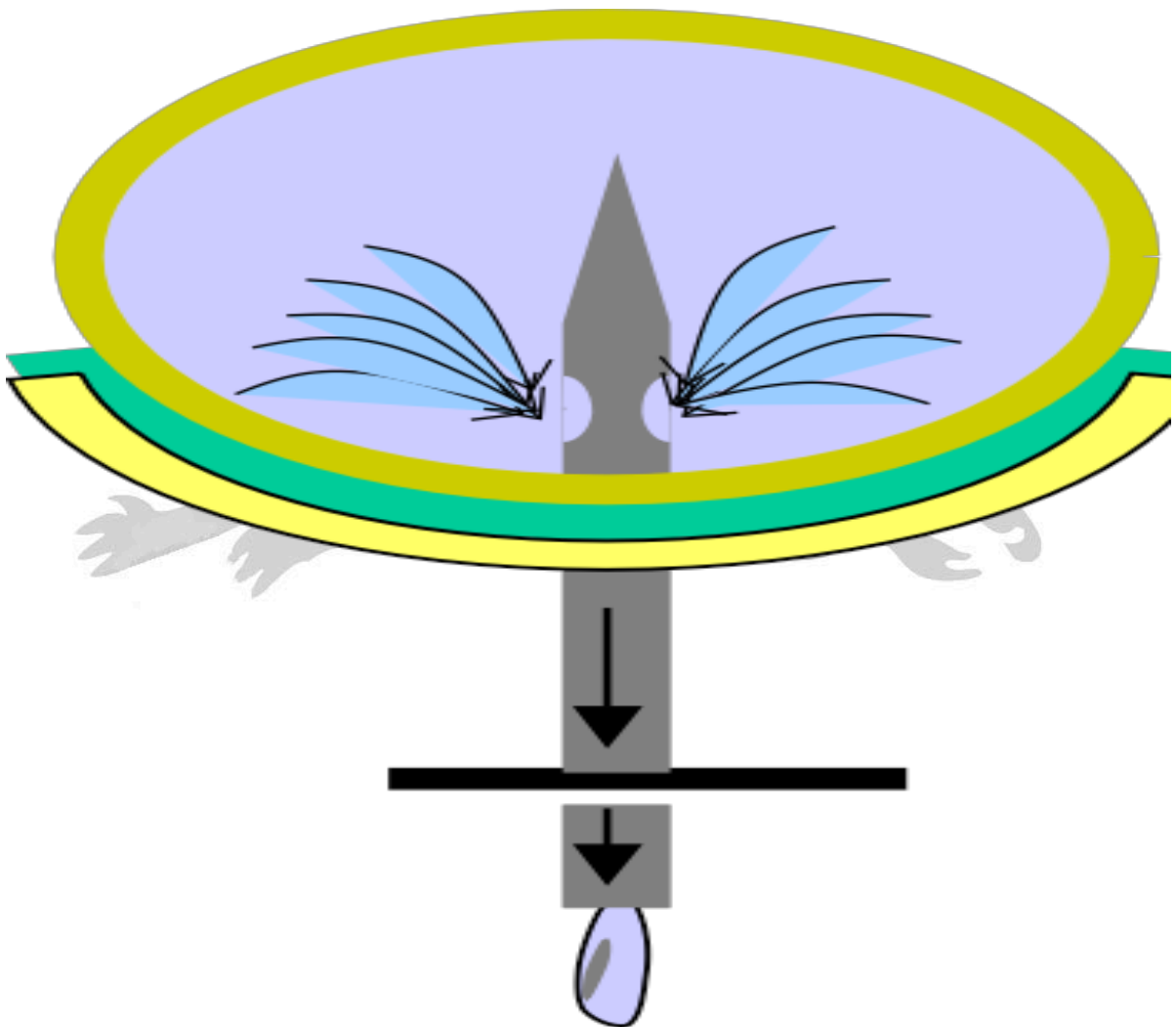
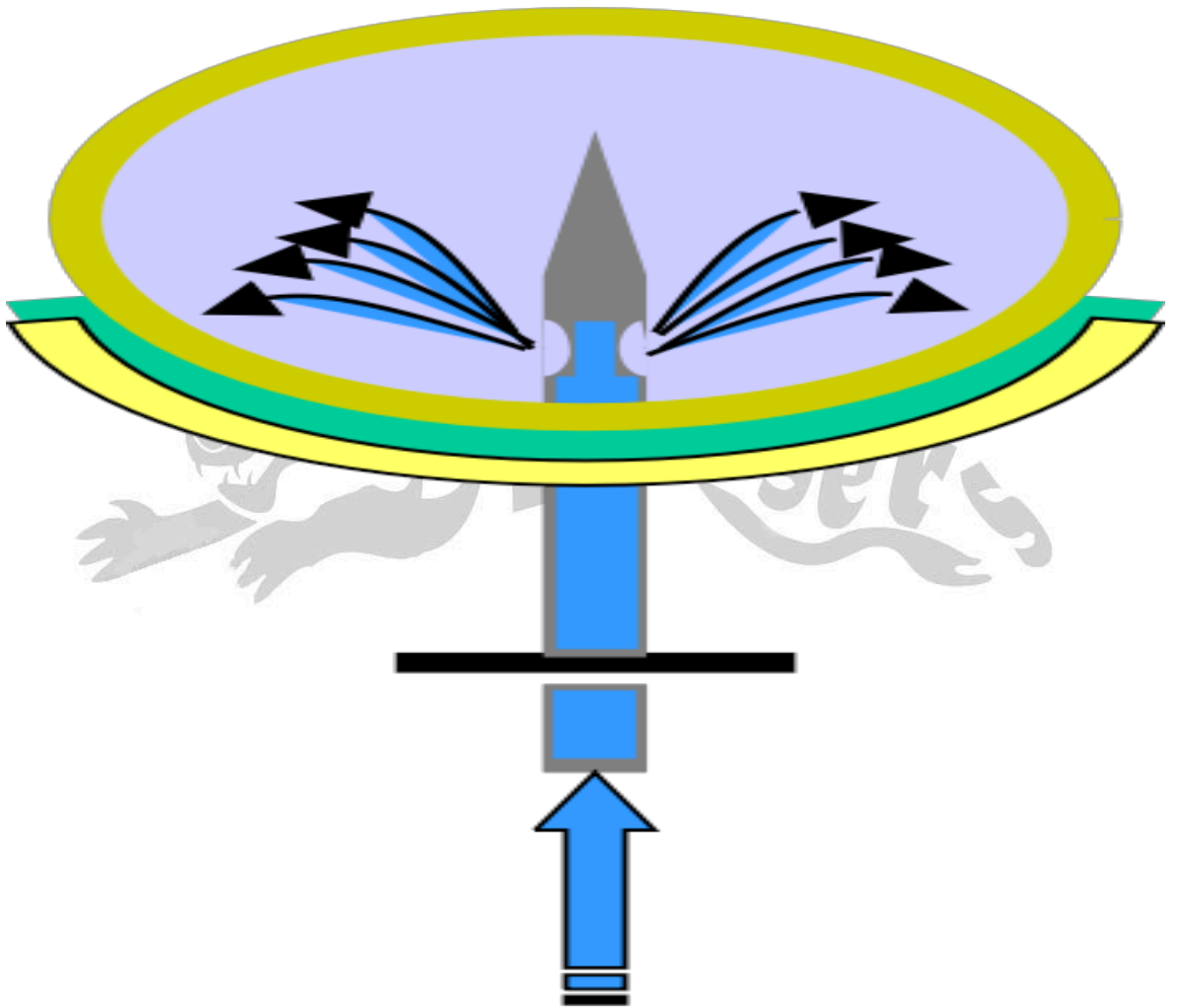


Fig.1. CSF reflux

**2. A faster distribution of the anaesthetic agent in the sub-arachnoid space, makes it possible to reduce the quantity of anesthetic administered.**



**Fig.2. Diffusion of anaesthetic solution**

**3. ELDOR 26G Quality Design provides a needle that is efficient, minimises the CPPD index with twin small symmetrical holes that provide a significantly stronger tip and reduces Post Dural Puncture Headache (PDPH).**



## **Product Details:**

- **Atraumatic spinal needle with a modified Whitacre closed cone pencil point.**
- **Sterile, single-use, non-pyrogenic.**
- **Blunt double lateral apertures.**
- **Manufactured from stainless steel (MSI304-SUS304 - Nippon Metal Industry Co. Ltd) 90mm long.**
- **Hand polished surface.**
- **Fracture resistant to 90 .**
- **Polycarbonate hub (351-10 AJC60) epoxy joint.**
- **Needle calibre colour identification.**
- **Needle introducers 20-22 (1 1/4").**
- **Clear sided packaging and labelled needle size information.**

## **Warning:**

**This product must be used by specialists (anaesthetists) who have sufficient knowledge and experience for its adequate use.**

**Single-use only.**

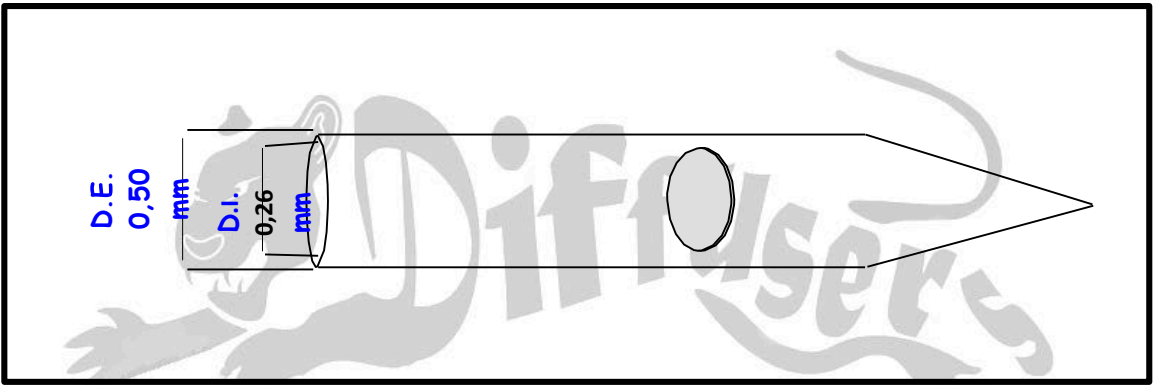
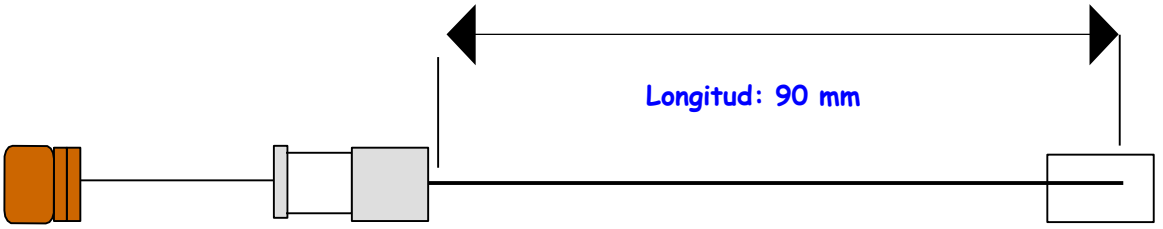
**Do not resterilise.**

**In cases of inadvertent osseous (bone) contact during spinal puncture, avoid pressure on the needle that might damage the point.**

**Only in extreme cases could the needle tip bend.**

**The product quality and design allows extraction without tip damage.**

# Dimensions:



# **Testimonials and Feedbacks from the Anaesthesiologists all around the World :**

**“Your products looks excellent...**

**Dr.Moon Soo Park, MD PhD, Seoul, Korea**

**“I find your "Combined Spinal-Epidural  
Needle (CSEN)" genial. There is no doubt for  
me that your needle will make the method of  
combined spinal-epidural anaesthesia simpler  
and safer.”**

**Ioan Curelaru, M.D., D.Sc., Ph.D.,  
Goteborg, Sweden**

**“I met several doctors who majored in  
Anesthesia.**



**As a conclusion, every doctor thinks your product's effect is better than the traditional one..."Jay Lee, Korea**

**"Overall - I like it very much and it would be my choice for young "easy" patients where the minimum damage to the tissue can guarantee maximum effect without risk of head or low back related pain."Slawomir W. Michalak, MD, Malta**

**"I have finally been able to use your spinal needles myself and get first hand feel. I am very impressed! The feel is much better (using 26# Spinal needles for my Epi/Spinals, I am able to compare better), the CSF flow is faster (comparitively) and the needle itself is stronger".Dr.C G Nanda Kumar, MD, UK**

**"We have used 3 needles so far and they seem to be OK...I wish you good luck for the**

**commercial and academic success of your needle.”-Dr. Narinder Rawal, MD, Sweden**

**“The anesthesiologist of Honduras are very motivated and are interested in your products.”-Dr.Fausto Echeverria, Tegucigalpa, Honduras**

**“At this moment we are introducing the CSE technique and the anesthesiologists are very motivated and are interested in your products.”-Dr.Dolly De Leon, MD, Panama**

**“I would like you to add to my table (see below), the Eldor needle and in the next column the characteristics...I wish you all success with your needle.”-Prof. Dr. A.A.J. van Zundert, Eindhoven, The Netherlands**

**“I have used your Eldor spinal needles in 2 cases and they were fantastic! Congratulations!”-Dr.Anibal de Oliveira Fortuna, MD, Brazil.**

**"One hundred women received our standard 3-holed 19-gauge multiport catheter and another 99 received the 7-holed 20-gauge multiport catheter...more patients in the 7-holed group had adequate sacral analgesia for delivery than in the 3-holed group."**

**Dr. J. A. Thomas, M.D.; A. W. Smith, M.D.;  
L. C. Harris, R.N.; P. Rieker, M.D.; R.  
D'Angelo, M.D., USA**

**"The Eldor epidural catheter performed better than the 3-hole catheter in flow rate, shear strength and tensile strength."**

**Materials Research Division (Modern  
Industries, Inc., Erie, Pennsylvania 16512-  
0399)**

**"The Eldor spinal needle showed a 5 fold increase in the immediate dispersal area compared to the Whitacre needle".**

**-Dr. Charles H. Ripp, USA**

**"The maximum force needed to bend the Eldor spinal needle was 9.65 lbs. compared to the maximum force of 9.16 lbs. needed to bend the Gertie Marx needle. "**

**Dr. Gaynes Labs, Incorporated (9708 Industrial Drive, Bridgeview, Illinois 60455)**

**"The backflow of the cerebrospinal fluid could be seen in a mean time of 0.6 seconds in the Eldor spinal needle compared to 2.1 seconds in the 27G Pencan needle. There were 5 cases of an anesthetic maldistribution in the Pencan group during the first 5 minutes after injection, and none in the Eldor spinal needle group."**

**Dr. Timo A. R. Palas, Switzerland**

**"26% of the patients of the Whitacre group and 14% of the patients of the Eldor group suffered from slight backache."**

**Prof. M. Tryba, Germany**

**"The needle of ELDOR seems to be a useful technical innovation because it offers a number of advantages: It makes it possible to position with the required calmness the peridural catheter, without being in a hurry because the subarachnoid block has already been carried out".**

**Dr.Maurizio Pintore, M.D., Fernando Chiumiento, M.D., Vincenzo Galdo, M.D., Errico Miele, M.D., Paolo Paganelli, M.D., Italy**

**"What I think and write about the Eldor Combined Spinal Epidural needle is the result**

of my personal experience, summarizing the several cases performed with this device.

The Eldor Combined Spinal Epidural needle is a different instrument to perform a regional anesthesia. It is not absolutely an easy device to manage. It does not mean that it is not safe. I mean that if you are performing a combined anesthesia with the Eldor needle you must think that it is not an epidural anesthesia with a conventional epidural needle. You will work with a wonderful new and safe instrument, different from the other needles, that you need to know it very well before its use.

Only after several successful or not regional anesthesia performances with the Eldor CSE kit you will be able to considering this device just as one of the lot of the instruments that you could use in absolute safety during your daily practice. I believe in the Eldor combined spinal epidural kit. I finally can perform in the

**correct way a combined anesthesia, performing first the epidural anesthesia and then the spinal puncture, with the same device, avoiding double spinal puncture or the use of dangerous techniques.”**

**Dr.Michele TOMMASI ROSSO,  
M.D., Spain**

**"I recently had a chance to examine a spinal needle which I believe might reduce or eliminate this problem (transient radiculopathy following the use of intrathecal lidocaine). It is called a double hole pencil point (DHPP) needle, and has some excellent advantages. First, it has an atraumatic, blunted, occluded point, like a pencil. The 2 holes are located on the sides, 180 degrees apart, such that the injectate is directed in 2 directions and 90 degrees from the axis of the needle. It is a 26 gauge needle,**

but aspiration of CSF is quite easy, probably because of the double hole arrangement. If these adiculopathies are concentration dependent (which they appear to be), I would imagine that directing the lidocaine injection away from the neural structures should afford protection."

Dr. Stephen T. Barasch, M.D., USA

"In our own experience, the only advantage of having two sideholes opposite each other, versus one sidehole, on a noncutting tip of a spinal needle was a faster backflow of cerebrospinal fluid when the dura was punctured."

Dr. Per H. Rosenberg, M. D., Finland

"Considering your products up till now I am a "walking advertisement" – they are really superior to many other names on the market. I'm happy that they trigger more interest



**especially in young colleagues.**

**Recently I used radiological biopsy needle 20cm long to sample the CSF from very fatty lady with CNS infection... We do need long needle! The distance to CSF was on 13.5 cm."**

**Dr.Sławomir W. Michalak MD., DEAA.,  
MALTA**

