

# ASTODIA

## Diaphanoscope for transillumination



ASTODIA allows the easy search for blood vessels for safe puncture.



With ASTODIA it is also possible to identify structures filled with air or liquid deep under the skin surface.

ASTODIA is specially suitable for patients in the field of paediatrics and preferably for premature babies and neonates. Venous and arterial vessels can be shown very well.

ASTODIA has an orange and a red high performance LED each equipped with a dimmer.

While the orange light guarantees very good contrasts, the red light can penetrate the tissue deeper. This is an advantage for the diagnostic of pneumothorax or hydroceles.



### Ordering details:

#### ASTODIA completely consisting of:

- 1 pcs. Control unit
- 1 pcs. Hand piece
- 1 pcs. Charger
- 1 pcs. Operating Instructions

Order no.: DIA100



**STIHLER ELECTRONIC**

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# Transillumination at the neonatal intensive care unit Forgotten possibilities of a classical method?



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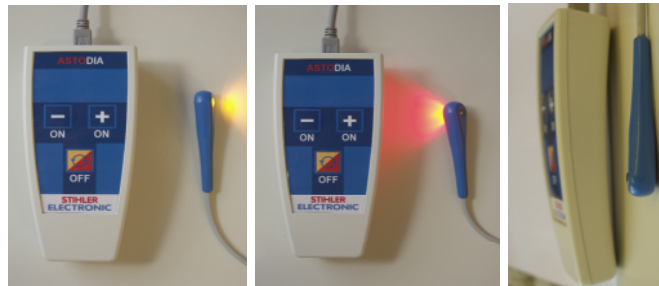
## Background

The method of transillumination (TI) or diaphanoscopy in the field of paediatrics was first mentioned for the diagnostics of the hydrocephalus in the sixties of the last century. In the following decades, this method was applied for the quick identification of pneumothorax and pneumoperitoneum and for the diagnosing a hydrocele in the neonatal period. In 1975, Kuhn and others described the advantages of the TI for exploring veins for the first time. Then, evaluations followed in the connection with arterial punctures. The devices which were like pocket torches (otoscopes, etc.) were supplemented by cold-light sources with fibre-optical light cables. In the last time, the light emitting diodes (LED) have been added.

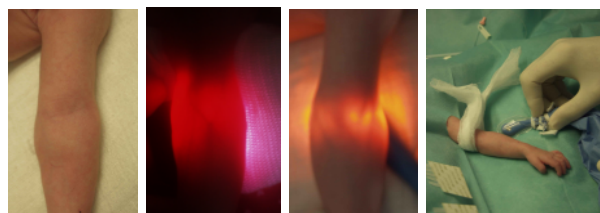


## Results

For the first time, we are presenting the new device ASTODIA (company Stihler Electronic, Stuttgart; [www.stihlerelectronic.de](http://www.stihlerelectronic.de)) which we have developed on the basis of our experience. It includes two selectable, dimmable, high-performance light-emitting diodes of different colours (red and yellow). Furthermore, it is small, easy to transport, rechargeable, can be disinfected well, and, if it is sterile packaged, it will be suitable also for procedures like the application of central catheters. Cutaneous heat measurements under TI and clinical handling did not give any indications for thermal stress because, in case the high light intensity has been selected, a safety circuit limits the time for the selected level and reduces it.



Criteria:	Assessment:
Angled optics	Yes
Luminous power	+++ (red or yellow)
Dimmability	Yes
Dimensions L x W x H [cm]	6,8 x 1,6 x 1,0
Disinfection	+++
Energy source	Battery



## Conclusion

Due to the improved application of the new device in connection with an appropriate training, the TI could be used as routine method at neonatal intensive care units much more often than before. Especially in case of difficult vessel conditions with small premature babies it would be a contribution to careful treatment.