

## Information conveyed to urologists regarding laser fiber diameter is incorrect, says new study

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Neither the total nor the core diameters of laser fibers correspond to the advertised laser fiber diameter, revealed a new study investigating lasers used for urological surgery. Furthermore, there are serious differences between manufacturers of fibers with a supposedly equal diameter.

The new study, conducted by Dr. Peter Kronenberg of Hospital Fernando Fonseca in Amadora, Portugal, and Prof. Olivier Traxer of the Hôpital Tenon in Paris, France, aimed to objectively confirm the <u>diameter</u> between <u>laser fibers</u> of supposed equal thickness by different brands.

According to Dr. P. Kronenberg, who recently presented the findings at the 2nd Meeting of the EAU Section of Urolithiasis (EULIS) in Copenhagen, Denmark, urologists need to know the exact technical specifications of the material they use.

"If the information conveyed to them, whether written on a product label or transmitted by an industry representative, is incorrect, their judgments and the decisions they make based on this knowledge may have surgical repercussions," he explained.

"And yet our measurements and survey suggest that most information conveyed to urologists regarding laser fiber diameter is incorrect and that the large majority of industry representatives are not aware of the



real diameter of the laser fibers they represent."

The findings should warrant attention from the urological community, as larger than advertised laser fibers influence irrigation flow, visibility, scope <u>deflection</u> and stone retropulsion.

In the course of the study 14 different brand-new laser fibers of 6 leading brands (with advertised diameters of 200, 270, 272, 273, 365, and 400  $\mu$ m, including single use and re-usable fibers) were assessed through light microscopy. Multiple measurements of both the total diameter (including fiber coating) and the fiber core diameter were performed and compared to their respective advertised diameter. A 10% diameter deviation was considered as the maximum tolerance margin to be acceptable due to manufacture procedures. In addition to that, representatives of those brands at the top two major urology congresses were questioned on what the real diameter of their fibers were and if said diameter was the total diameter or only its core.

The total and the core diameters measured were both significantly different from the advertised diameter in all fibers (p

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