

# CENTERLESS HIFU

## CENTERLESS! INTERFERELESS! PAINLESS!

### Features of CENTERLESS HIFU

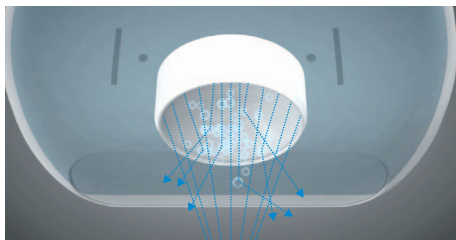
**CENTERLESS HIFU** is a new and innovative HIFU system using a special concave-type piezoelectric ceramic with a hole at the center. A tube is inserted through the hole to prevent generation of ultrasound at the center of the ceramic.



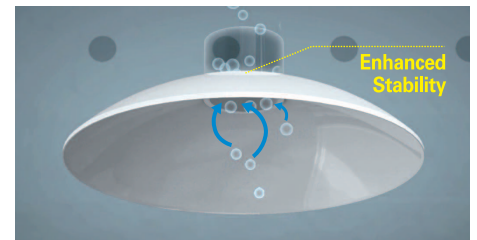
### Enhanced Stability

As the ultrasound passes through the water in the transducer, microbubbles are formed (Cavitation effect). Due to the concave shape of the piezoelectric ceramic, these microbubbles gather at the surface of the ceramic, which interferes the transmission of ultrasonic energy. CENTERLESS HIFU discharges the microbubbles, caused by cavitation effect, through the hole at the center to the rear of the ceramic, which in turn allows total energy generated by the piezoelectric ceramic to be focused within the skin, and thereby improve the safety of ultrasonic energy

Limitations of current transducer



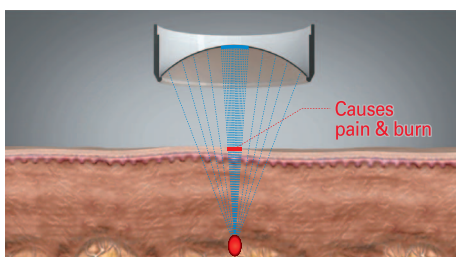
CENTERLESS HIFU transducer



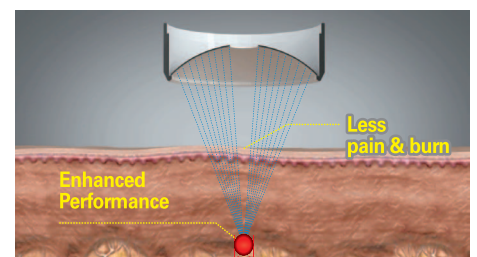
### Enhanced Safety and Performance

Most of the products lower the ultrasonic energy in order to reduce side effects. However, lowering the energy reduces the size of the heat lesion accordingly, and hence this will result in deterioration in performance of the transducer. CENTERLESS HIFU fundamentally resolves the problem of creating excessive heat on the skin surface caused by concentration of ultrasonic energy at the center of piezoelectric. According to experimental results, it has shown to reduce side effects as well as improving the performance of the heat lesion by more than 50%

Limitations of current transducer



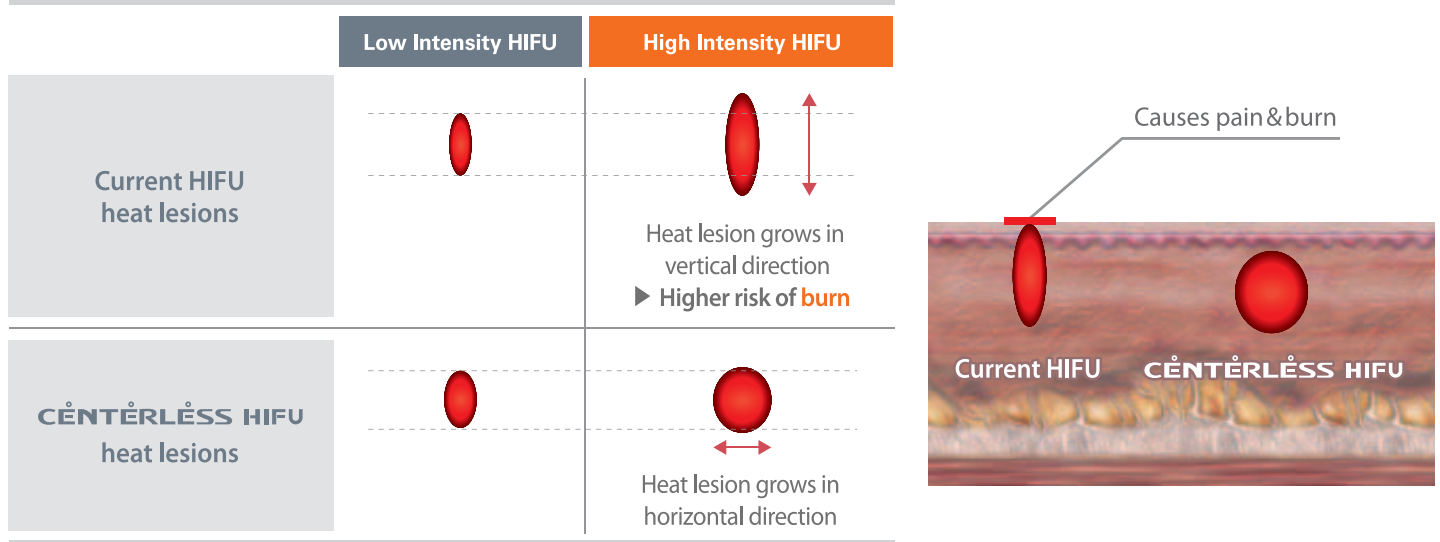
CENTERLESS HIFU transducer



## UTIMS is CENTERLESS

KORUST has successfully produced more effective CENTERLESS HIFU transducers. The heat lesion is more focused and shaped like an egg, and hence, CENTERLESS HIFU is able to deliver a safer and better treatment results

- Stable focal points(heat lesion) and maximizing the treatment outcomes
- Reduced side effects, such as pain and burns
- Safer treatment



## CENTERLESS HIFU Transducers

<b>Standard Type</b> C4D    C7M <span style="border: 1px solid black; padding: 2px;">C7D</span> <span style="border: 1px solid black; padding: 2px;">C10S</span>	<b>Narrow Type</b> N7M    N10S	<b>10MHz</b> C10S    N10S	<b>Body Type</b> C3N    C3C    C3F
<b>Depth</b> 4.5mm, 3.0mm, 1.5mm <b>Frequency</b> 4MHz, 7MHz, 10MHz <b>Treat line</b> 5.0~30mm <b>Spacing</b> 1.0~5.0mm	<b>Depth</b> 3.0mm, 1.5mm <b>Frequency</b> 7MHz, 10MHz <b>Treat line</b> 5.0~15mm <b>Spacing</b> 1.0~5.0mm	<b>Depth</b> 1.5mm <b>Frequency</b> 10MHz <b>Treat line</b> 5.0~30mm <b>Spacing</b> 1.0~5.0mm	<b>Depth</b> 8.0mm, 13.0mm, 18.0mm <b>Frequency</b> 3MHz <b>Treat line</b> 5.0~30mm <b>Spacing</b> 1.0~5.0mm