

## Atlantis™ – patient-specific abutments

The Atlantis™ patient-specific abutments are Astra Tech's CAD/CAM solution for cement-retained implant restorations. Using the Atlantis VAD™ (Virtual Abutment Design) software, the abutments are individually designed based on the desired final tooth shape for a more natural esthetic result. Moreover, the software makes it possible to locate the margin in an optimal position, i.e. more coronally, in order to avoid cement-related complications. Atlantis abutments are available for all major implant systems, including the Astra Tech Implant System™ where the abutments are designed to function in harmony with the features and benefits of the Astra Tech BioManagement Complex™. The abutments are available in zirconia (white and shaded), titanium and gold-shaded titanium. The Atlantis abutment in zirconia is made of Y-TZP (yttria-stabilized tetragonal zirconia polycrystals). Detailed information about Y-TZP is available in the Zirconia Scientific Review.

The clinical use of the Atlantis abutment has been described in numerous case reports. Excellent esthetic results have been reported for both titanium<sup>1-10</sup>, gold-shaded titanium<sup>11</sup> and zirconia<sup>12-14</sup> abutments. Moreover, advantages such as reduced chairtime<sup>15-17</sup>, cost-effective and simplified treatment procedures<sup>8, 18</sup>, reduced number of impressions with duplicate abutments<sup>1, 2, 7, 10, 18, 19</sup>, accuracy of fabrication<sup>20, 21</sup>, optimal fit between abutment and implant<sup>22</sup>, ideal fit and retention of copings<sup>15, 23</sup>, and establishment of optimal soft tissue contour and emergence profile<sup>4, 7, 10, 24</sup> have been described for the Atlantis abutment. Excellent mechanical properties have been reported for the zirconia Atlantis abutment<sup>20</sup>. An in vitro study comparing the mechanical properties of Atlantis and Procera™ (Nobel Biocare)\* zirconia abutments found superior results for the Atlantis abutments in terms of strength and probability to survive occlusal forces<sup>20</sup>.

\*Atlantis™, VAD™, Astra Tech Implant System™, Astra Tech BioManagement Complex™ are trademarks of Astra Tech AB, all other trademarks are the property of respective owners.

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