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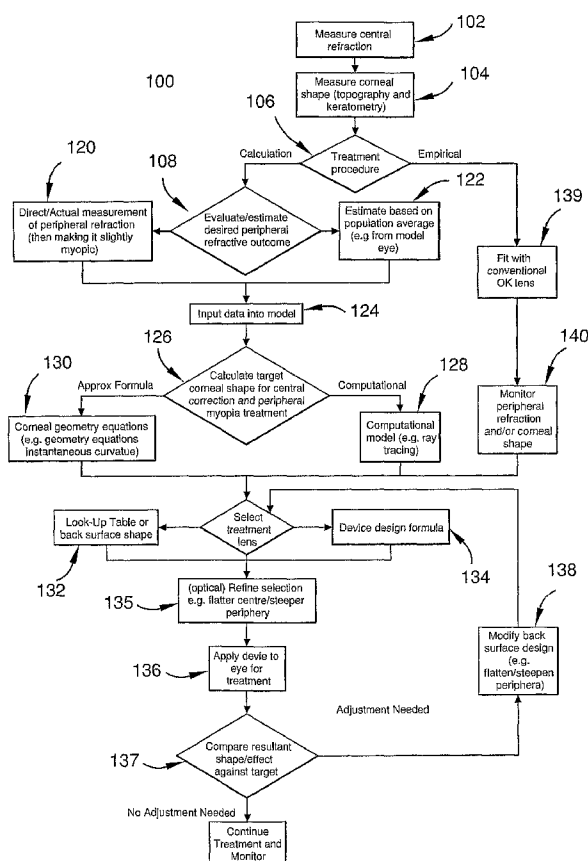
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(57) Abstract: This invention relates to methods of shaping the anterior surface of the eye for controlling the progression of refractive error of the eye, in particular, myopia. The method employs the fitting of orthokeratology lenses having a precisely shaped posterior surface adapted to accurately shape the peripheral region of the eye. The method includes the steps of assessing central and peripheral refractive error parameters for the eye, determining the optimal anterior surface profile for the eye, including at both the optical centre of the cornea and at a selected optical periphery of the cornea, which would result in a desired refractive correction to achieve good vision for the eye and the desired peripheral refraction (curvature of field) for the eye for controlling progression of myopia. Accurate measurement of the shape of the pre-treated eye is important, thereby enabling a corresponding lens profile to be designed or selected so that the treatment process achieves a post-treatment peripheral profile which optimally focuses peripheral rays anteriorly of the retina, thereby controlling the progression of myopia. The invention extends to a lens manufactured so as to optimally treat the peripheral region of the eye.



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