

11 Choice and recommendation of bifocal lens from the catalogue

11.1 Introduction

Bifocal lenses are still currently alternative solution to progressive lenses. Bifocal lenses have some advantages which are preferred by some patients. Bifocal lenses have lower peripheral astigmatism and distortion in comparison with progressive lenses. Main disadvantage of the bifocal lens is skip of the image and aesthetic problem which is represented by visible connection between distance and near part of the lens.

11.2 Goals

- For given spectacle frame choose and center proper bifocal lens from lens catalogue.
- For given patient release and evaluate prescription for optical aid.
- For given patient and prescription create financial plan for spectacles.

11.3 Equipment

Actual book of VZP, catalogue of spectacle lens producer, writing equipment, calculator, PD meter.

11.4 Methods

For given spectacle frame choose and center proper bifocal lens from lens catalogue.

Your task is to choose proper spectacle frame for you colleague (student) from spectacle book and proper spectacle lens. Correction could be for bifocal lenses. In the protocol you should note all measured parameters and data of selection including boxing system, PD of the patient, height of the centration, vertex distance, name of the frame and lens, type of antireflection coating. You should of course calculate and note decentration and chosen lens diameter.

For given patient release and evaluate prescription for optical aid.

You should draw general prescription form into the protocol and fill in all important notes in it. Further you should financially evaluate the prescription.

For given patient and prescription create financial plan for spectacles.

In this task you should create financial evaluation of the prescription for patient, i.e. you will sum price for the spectacle frame, spectacle lenses, for addition task as e.g. repair of the side, soldering etc. is. From this sum you will subtract price for the prescription and define payment for advance and payment of the rest of the issue.

11.5 Results

For given spectacle frame choose and center proper bifocal lens from lens catalogue.

For given patient release and evaluate prescription for optical aid.

For given patient and prescription create financial plan for spectacles.

11.6 Discussion

In ideal example addition of the bifocal lens should be lower than accommodation amplitude. In this case patient is able to cover with accommodation interval all distance and there is no blurry part of visual field. On opposite case (addition is higher than accommodation amplitude) patient will see blurry parts of visual field. This problem is successfully solved by progressive lenses. But progressive lenses contain progressive corridor with peripheral blurry parts and distortion which patient have to adapt on it.

11.7 Conclusion, notes, comments

Which types of bifocal lenses do you know – according to material and technology of manufacturing?

Which types of near segments for bifocal lenses do you know?

Who is inventor of the bifocal lenses?