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Implants for surgery — Partial and total hip-joint prostheses —

Part 10:

Determination of resistance to static load of modular femoral heads

Implants chirurgicaux — Prothèses partielles et totales de l'articulation de la hanche —

Partie 10: Détermination de la résistance à la charge statique de têtes fémorales modulaires



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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ISO 7206-10 was prepared by Technical Committee ISO/TC 150, *Implants for surgery*, Subcommittee SC 4, *Bone and joint replacements*.

ISO 7206 consists of the following parts, under the general title *Implants for surgery — Partial and total hip-joint prostheses*:

- Part 1: Classification and designation of dimensions
- Part 2: Articulating surfaces made of metallic, ceramic and plastics materials
- Part 4: Determination of endurance properties of stemmed femoral components
- Part 6: Determination of endurance properties of head and neck region of stemmed femoral components
- Part 8: Endurance performance of stemmed femoral components with application of torsion
- Part 10: Determination of resistance to static load of modular femoral heads

Introduction

Some designs of stemmed femoral components of total hip-joint prostheses comprise a stem/neck component and a component that forms the articulating surface, which is commonly in the form of a partial sphere incorporating a female conical taper connection for attachment to the neck of the stem. It is important, therefore, that the head and neck are of sufficient strength to withstand the static axial loads likely to be exerted on the prosthesis during use. This method addresses the static strength and attachment of the head. It should be noted that the test conditions described in this part of ISO 7206 do not exactly reproduce all the factors in the clinical situation.