WHAT IS CLAIMED IS:

1. A femoral component of a hip implant device, comprising:

(a) a neck having a central axis; and

(b) a body distal to the neck, the body having a tapered portion, wherein the body has a largest cross section perpendicular to the neck central axis, the largest cross section perpendicular to the neck central axis having a maximum height dimension and a maximum width dimension, wherein the maximum height dimension is about 23.9 mm or less.

2. The femoral component of claim 1, wherein the maximum height dimension is between about 20.3 mm and 23.9 mm.

3. The femoral component of claim 1, wherein the maximum width dimension is about 18.5 mm or less.

4. The femoral component of claim 3, wherein the maximum width dimension is between about 15.7 mm and 18.5 mm.

5. The femoral component of claim 1, wherein the tapered portion is tapered from proximal to distal in the sagittal and coronal planes.

6. The femoral component of claim 5, wherein the tapered portion is further tapered in the lateral to medial in cross section.

7. The femoral component of claim 1, wherein the body has an exterior surface and wherein the femoral component further comprises a porous surface coating applied circumferentially to the surface of the body.

8. The femoral component of claim 7, wherein the porous surface coating is applied by plasma spray.

9. The femoral component of claim 7, wherein the porous surface coating comprises metal.

10. The femoral component of claim 9, wherein the porous surface coating comprises titanium.

11. The femoral component of claim 7, wherein the body is titanium and wherein the porous surface coating is titanium.

12. A femoral component of a hip implant device, comprising:

(a) a neck having a central axis;

(b) a body distal to the neck and having a tapered portion, wherein the body has a largest cross section perpendicular to the neck central axis, the largest cross section perpendicular to the neck central axis having a maximum height dimension and a maximum width dimension, wherein the maximum width dimension is about 18.5 mm or less.

13. The femoral component of claim 12, wherein the maximum width dimension is between about 15.7 mm and 18.5 mm.

14. The femoral component of claim 12, wherein the maximum height dimension is about 23.9 mm or less.

15. The femoral component of claim 14, wherein the maximum height dimension is between about 20.3 mm and 23.9 mm.

16. The femoral component of claim 12, wherein the tapered portion is tapered from proximal to distal in the sagittal and coronal planes.

17. The femoral component of claim 16, wherein the tapered portion is further tapered in the lateral to medial in cross section.

18. The femoral component of claim 12, wherein the body has an exterior surface and wherein the femoral component further comprises a porous surface coating applied circumferentially to the surface of the body.

19. The femoral component of claim 18, wherein the porous surface coating is applied by plasma spray.

20. The femoral component of claim 19, wherein the porous surface coating comprises metal

21. The femoral component of claim 20, wherein the porous surface coating comprises titanium.

22. The femoral component of claim 18, wherein the body is titanium and wherein the porous surface coating is titanium.

~~23. A femoral component of a hip implant device, comprising:~~

~~(a) a neck; and~~

~~(b) a body distal to the neck, the body having a tapered portion and a stem portion having a distal tip, wherein the stem portion has a central axis and wherein the length of the body as measured from the medial junction of the neck and body along a axis parallel to the central axis of the stem portion is about 125 mm or less.~~

~~24. The femoral component of claim 23, wherein the body has a lateral humped portion.~~

~~25. The femoral component of claim 23, wherein the tapered portion is tapered proximal to distal in the sagittal and coronal planes.~~

~~26. The femoral component of claim 24, wherein the tapered portion is further tapered in the lateral to medial in cross section.~~

~~27. The femoral component of claim 23, wherein the length of the body is less than about 120, 115, 110, 105, 100, 95, 90, 85 or 80 mm.~~

~~28. The femoral component of claim 23, wherein the length of the body is between about 125 mm and 80 mm.~~

~~29. The femoral component of claim of claim 23, wherein the stem portion is positioned in the diaphysis of a femur and does not contact the cortex of the femur.~~

~~30. The femoral component of claim 23, wherein the body has an exterior surface and wherein the femoral component further comprises a porous surface coating applied circumferentially to the surface of the body.~~

~~31. The femoral component of claim 30, wherein the porous surface coating in located proximal to the stem portion.~~

~~32. The femoral component of claim 30, wherein the body has a lateral humped portion and the porous surface coating coats the humped portion.~~

~~33. The femoral component of claim 30, wherein the porous surface coating is applied by plasma spray.~~

~~34. The femoral component of claim 33, wherein the porous surface coating comprises metal.~~

~~35. The femoral component of claim 34, wherein the porous surface coating comprises titanium.~~

~~36. The femoral component of claim 30, wherein the body is titanium and wherein the porous surface coating is titanium.~~

~~37. A femoral component of a hip implant device, comprising:~~

~~(a) a neck; and~~

~~(b) a body distal to the neck, the body having a tapered portion and a stem portion having a distal tip, wherein the stem portion is proportioned such that the stem portion has no substantial contact with the intramedullary canal cortex when the femoral component is implanted in a femur.~~

~~38. The femoral component of claim 37, wherein the body has a lateral humped portion.~~

~~39. The femoral component of claim 37, wherein the stem portion has no contact with the intramedullary canal cortex when the femoral component is implanted in a femur.~~

~~40. The femoral component of claim 37, wherein the stem portion has only tangential contact with the intramedullary canal cortex when the femoral component is implanted in a femur.~~

~~41. The femoral component of claim 37, wherein the stem portion has a central axis and wherein the length of the body as measured from the medial junction of the neck and body along a axis parallel to the central axis of the stem portion is about 125 mm or less.~~

~~42. The femoral component of claim 37, wherein the tapered portion is tapered proximal to distal in the sagittal and coronal planes.~~

~~43. The femoral component of claim 37, wherein the tapered portion is further tapered in the lateral to medial in cross section.~~

~~44. The femoral component of claim 41, wherein the length of the body is less than about 120, 115,110, 105, 100, 95, 90, 85 or 80 mm.~~

~~45. The femoral component of claim 41, wherein the length of the body is between about 125 mm and 80 mm.~~

46. The femoral component of claim 37, wherein the body has an exterior surface and wherein the femoral component further comprises a porous surface coating applied circumferentially to the surface of the body.

47. The femoral component of claim 46, wherein the porous surface coating in located proximal to the stem portion.

48. The femoral component of claim 46, wherein the body has a lateral humped portion and the porous surface coating coats the humped portion.

49. The femoral component of claim 46, wherein the porous surface coating is applied by plasma spray.

50. The femoral component of claim 49, wherein the porous surface coating comprises metal.

51. The femoral component of claim 50, wherein the porous surface coating comprises titanium.

52. The femoral component of claim 46, wherein the body is titanium and wherein the porous surface coating is titanium.

53. A method of implanting a femoral component during hip surgery, comprising:

(a) providing a femoral component comprising a body; and

(b)implanting the femoral component into a femur of a patient, wherein a portion of the body of the femoral component enters the intramedullary canal of the femur and wherein the portion that enters the intramedullary canal does not substantially contact the cortex of the intramedullary canal when implanted in the patient's femur.

54. The method of claim 53, wherein the portion of the body that enters the intramedullary canal has no contact with the cortex of the intramedullary canal.

55. The method of claim 53, wherein the portion of the body that enters the intramedullary canal has only tangential contact with the cortex of the intramedullary canal.

56. The method of claim 53, wherein the patient is of Asian descent.

57. The method of claim 53, wherein the femoral component is substantially fixed in the patients femur in the metaphysis of the femur.

~~58. A method of implanting a femoral component during hip surgery, comprising:~~

~~(a) providing a femoral component comprising a body, wherein the body comprises a distal stem portion; and~~

~~(b)implanting the femoral component into a femur of a patient, wherein a portion of the body, including the distal stem portion, of the femoral component enters the intramedullary canal of the femur and wherein the distal stem portion does not substantially contact the cortex of the intramedullary canal when the femoral component is implanted in the patient's femur.~~

~~59. The method of claim 58, wherein the portion of the body that enters the intramedullary canal has no contact with the cortex of the intramedullary canal.~~

~~60. The method of claim 58, wherein the portion of the body that enters the intramedullary canal has only tangential contact with the cortex of the intramedullary canal.~~

~~61. The method of claim 58, wherein the patient is of Asian descent.~~

~~62. The method of claim 58, wherein the femoral component is substantially fixed in the patients femur in the metaphysis of the femur.~~