CLAIMS

1. An orodispersible solid pharmaceutical dosage unit having a weight between 30 and 1,000 mg, said dosage unit consisting of:
   - 0.1-25 wt.% of estetrol particles containing at least 90 wt.% of an estetrol component selected from estetrol, estetrol esters and combinations thereof and having a volume median diameter of 2 μm to 50 μm; and
   - 75-99.9 wt.% of one or more pharmaceutically acceptable ingredients;

   the solid dosage unit comprising at least 100 μg of the estetrol component;

   wherein the solid dosage unit can be obtained by a process comprising:
   - providing estetrol particles containing at least 90 wt.% of the estetrol component and having a volume median diameter of 2 μm to 50 μm;
   - mixing the estetrol particles with one or more granulation excipients to produce a granulation mixture;
   - mixing the granulation mixture with a granulation liquid to produce estetrol-containing granules, said granulation liquid containing at least 60 wt.% of liquid solvent;
   - removing liquid solvent from the estetrol-containing granules to produce dry estetrol-containing granules;
   - optionally mixing the dry granules with one or more tabletting excipients; and
   - forming the dry granules or the mixture of the dry granules and the one or more tabletting excipients into a solid dosage unit.

2. Dosage unit according to claim 1, wherein the dosage unit has a weight between 40 and 500 mg.

3. Dosage unit according to claim 1 or 2, wherein the dosage unit contains of 0.5-25 wt.% of the estetrol component.

4. Dosage unit according to any one of the preceding claims, wherein the dosage unit contains 0.3-100 mg of the estetrol component.

5. Dosage unit according to any one of the preceding claims, wherein the estetrol component is estetrol.

6. Dosage unit according to any one of the preceding claims, wherein the estetrol particles have a volume median diameter of 3-35 µm.

7. Dosage unit according to any one of the preceding claims, wherein the dosage unit contains 50-99.9 wt.% of water-soluble carbohydrate selected from maltose, fructose, sucrose, lactose, glucose, galactose, trehalose, xylitol, sorbitol, erythritol, maltitol, mannitol, isomalt and combinations thereof.

8. Dosage unit according to claim 7, wherein the dosage unit contains at least 20 wt.% mannitol.

9. Dosage unit according to any one of the preceding claims, wherein the dosage unit contains 0.1-20 wt.% of a disintegrating agent selected from starch, pregelatinized starch, sodium salt of carboxymethyl starch, crosslinked polyvinylpyrrolidone, crosslinked carmellose and combinations thereof.

10. Dosage unit according to any one of the preceding claims, wherein said pharmaceutically acceptable ingredient is selected from the group consisting of: progesterone, desogestrel, etonogestrel, gestodene, dienogest, levonorgestrel, norgestimate, norethisterone, norethisteron-acetate (NETA), nomegestrol, nomegestrol-acetate (NOMAC), drospirenone, trimegestone, nestorone and dydrogesterone.

11. Dosage unit according to claim 10, wherein said pharmaceutically acceptable ingredient is 0.05-10 mg, or 0.1-5 mg of drospirenone

12. The dosage unit according to any one of the preceding claims, for use in medical treatment.

13. Use of an estetrol component for the manufacture of a medicament in the form of a solid dosage unit according to any one of claims 1 to 11, for female hormone replacement therapy, wherein said solid dosage unit is to be administered sublingually, buccally or sublabially.

14. The use according to claim 13, wherein said solid dosage unit is to be administered once daily during a period of at least 1 week.

15. Use of an estetrol component for the manufacture of a medicament in the form of a solid dosage unit according to any one of claims 1 to 11 for female contraception, wherein said solid dosage unit is to be administered sublingually, buccally or sublabially.

16. The use according to claim 15, wherein said solid dosage unit is to be administered once daily during a period of at least 1 week.

17. A process of preparing a solid dosage unit according to any one of the preceding claims, said process comprising the steps of:
    - providing estetrol particles containing at least 90 wt.% of an estetrol component selected from estetrol, estetrol esters and combinations thereof and having a volume median diameter of 2 µm to 50 µm;
    - mixing the estetrol particles with one or more granulation excipients to produce a granulation mixture;
    - mixing the granulation mixture with a granulation liquid to produce estetrol-containing granules, said granulation liquid containing at least 60 wt.% of liquid solvent;
    - removing liquid solvent from the estetrol-containing granules to produce dry estetrol-containing granules;
    - optionally mixing the dry granules with one or more tabletting excipients; and
    - forming the dry granules or the mixture of the dry granules and the one or more tabletting excipients into a solid dosage unit.

18. Process according to claim 17, wherein the estetrol particles have a volume median diameter of 3-35 µm.

19. Process according to claim 17 or 18, wherein the granulation mixture contains 0.1-20 wt.% of a disintegrating agent selected from starch, pregelatinized starch, sodium salt of carboxymethyl starch, crosslinked PVP, crosslinked carmellose and combinations thereof.

20. Process according to any one of claims 17 to 19, wherein the granulation mixture is produced by combining the estetrol particles with the one or more granulation excipients in a weight ratio that is in the range of 1:4 to 1:1,000.

21. Process according to any one of claims 17 to 20, wherein the estetrol-containing granules are produced by mixing the granulation mixture with the granulation liquid in a weight ratio that is in the range of 0.5:1 to 20:1.

22. Process according to any one of claims 17 to 21, wherein the estetrol-containing granules are produced by mixing the granulation mixture with the granulation liquid in a high shear granulator, a low shear granulator or a fluidized bed granulator.

23. Process according to any one of claims 17 to 22, wherein the granulation liquid contains at least 60 wt.% of polar solvent selected from water, methanol, ethanol, iso-propanol, acetone and combinations thereof.

24. Process according to claim 23, wherein the granulation liquid contains at least 60 wt.% of polar solvents selected from water, ethanol and combinations thereof.

25. Process according to claim 23or 24, wherein the polar solvent contains at least 80 wt.% water.

26. Process according to any one of claims 17 to 25, wherein the granulation liquid contains 0.5 to 40 wt.% of binder, said binder being selected from cellulose derivatives, starch, pregelatinized starch, sodium salt of carboxymethyl starch, polyvinyl alcohol, polyvinylpyrrolidone, agar, gelatin, guar gum, gum Arabic, alginate, polyethylene glycol, glucose, sucrose, sorbitol and combinations thereof.

27. Process according to claim 26, wherein the binder is selected from cellulose derivatives, pregelatinized starch, polyvinylpyrrolidone and combinations thereof.

28. Process according to claim 26 or 27, wherein the cellulose derivatives are selected from hydroxypropyl cellulose, hydroxyethyl cellulose, hydroxymethyl cellulose, hydroxypropylmethylcellulose, methylcellulose, ethylcellulose, carboxymethyl cellulose and combinations thereof.

29. Process according to any one of claims 15-26, wherein the dry estetrol-containing granules have a volume median diameter in the range of 100-4,000 µm.

30. Process according to any one of claims 15-27, wherein the one or more tabletting excipients include lactose, mannitol, xylitol, microcrystalline cellulose, starch, croscarmellose sodium, polyvinyl pyrrolidone and combinations thereof.

31. Process according to any one of claims 15-28, wherein the solid dosage unit is formed by direct compression or compression moulding.