

Claims

1. An implantation needle (110) for inserting a subcutaneously insertable element (112) into a body tissue, wherein the implantation needle (110) comprises at least one covering (158) comprising at least one pharmaceutical compound, wherein the pharmaceutical compound is configured to remain at least partially in the body tissue after insertion of the subcutaneously insertable element (112).
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2. The implantation needle (110) according to claim 1, wherein the pharmaceutical compound is selected from the group consisting of: an immunosuppressive, an anti-allergic, an anti-inflammatory agent.
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3. The implantation needle (110) according to any one of claims 1 to 2, wherein the pharmaceutical compound is selected from the group consisting of: dexamethasone, a derivative of dexamethasone, betamethasone, a derivative of betamethasone.
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4. The implantation needle (110) according to any one of claims 1 to 3, wherein the pharmaceutical compound comprises at least one compound which is configured to improve a tolerance of the subcutaneously insertable element (112).
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5. The implantation needle (110) according to any one of claims 1 to 4, wherein the pharmaceutical compound is configured to reduce at least one of an immune rejection, a scarring, a growth of infectious agents.
- 25 6. The implantation needle (110) according to any one of claims 1 to 5, wherein the covering (158) comprises at least one excipient.
7. The implantation needle (110) according to claim 6, wherein the excipient is selected from the group consisting of: a polylactide, a polyglycolide, a polydioxanone.
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8. The implantation needle (110) according to any one of claims 1 to 7, wherein the implantation needle (110) comprises at least one outer surface (130) facing an outer environment (132) of the implantation needle (110) and at least one inner surface (134) facing an interior space (136) of the implantation needle (110), wherein the covering (158) covers the outer surface (130) of the implantation needle (110) at least partially.
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9. The implantation needle (110) according to any one of claims 1 to 8, wherein the implantation needle (110) comprises at least one subcutaneously insertable element receiving portion (118) and at least one tip portion (120), wherein the tip portion (120) is covered with the covering (158) at least partially.
10. The implantation needle (110) according to claim 9, wherein the tip portion (120) further comprises at least one adhesive coating (152), wherein the adhesive coating (152) is arranged between at least one surface of the implantation needle (110) and the covering (158).
11. The implantation needle (110) according to any one of claims 1 to 10, wherein the pharmaceutical compound is configured to be released via a mechanical stripping process during withdrawal of the implantation needle (110) from the body tissue.
12. The implantation needle (110) according to any one of claims 1 to 11, wherein the pharmaceutical compound is configured to be released via a dissolving process of the pharmaceutical compound.
13. A kit (108) for inserting a subcutaneously insertable element (112) into a body tissue, wherein the kit (108) comprises:
- at least one implantation needle (110) according to any one of claims 1 to 12; and
 - at least one subcutaneously insertable element (112).
14. A method of manufacturing an implantation needle (110) according to any one of claims 1 to 12, wherein the method comprises the following steps:
- a) providing at least one needle element; and
 - b) covering at least one surface of the needle element with the pharmaceutical compound by at least one covering process such that the implantation needle (110) is formed.
15. The method according to claim 14, wherein the covering process is selected from the group consisting of: a dip coating process; a powder coating process; a spray coating process; a printing process; a lamination process; a dispensing process; a physical vapor deposition; a chemical vapor deposition; an electrospinning process; an electroplating process; a chemical surface functionalizing process.