

Claims

1. A gastric restrictive device comprising:
 - two separate elongated rigid members;
 - a cushioning arrangement comprising
 - at least one first elongated inflatable padding lined longitudinally along a first elongated rigid member of the two separate elongated rigid members,
 - at least one second elongated inflatable padding lined longitudinally along a second elongated rigid member of the two separate elongated rigid members, and
 - at least one flexible and extendable hollow tube fluidly interconnecting the at least one first elongated inflatable padding and the at least one second elongated inflatable padding,
 - wherein a first end of the at least one flexible and extendable hollow tube is connected to an end of the at least one first elongated inflatable padding corresponding to a first longitudinal end of the first elongated rigid member, and a second end of the at least one flexible and extendable hollow tube is connected to an end of the at least one second elongated inflatable padding corresponding to a first longitudinal end of the second elongated rigid member; and
 - an interlocking arrangement comprising
 - a first interlocking element at a second longitudinal end of the first elongated rigid member, and
 - a second interlocking element at a second longitudinal end of the second elongated rigid member,
 - wherein the at least one flexible and extendable hollow tube of the cushioning arrangement is bendable to fold the two separate elongated rigid members towards each other from a non-closed configuration, whereby the first interlocking element and the second interlocking element are spaced apart from each other in a non-engageable disposition, into a closed configuration with the at least one first elongated inflatable padding and the at least one second elongated padding parallel and opposing each other

and with the first interlocking element and the second interlocking element engageable with each other to interlock in the closed configuration.

2. The device as claimed in claim 1, wherein the at least one flexible and extendable hollow tube of the cushioning arrangement comprises a tube with corrugated bellows.

3. The device as claimed in claim 1 or 2, wherein the at least one flexible and extendable hollow tube comprises a first corrugated bellows segment, a second corrugated bellows segment, and a smooth segment extending between the first corrugated bellows segment and the second corrugated bellows segment.

4. The device as claimed in claim 3, further comprising a branch tube extending from a side of the smooth segment of the at least one flexible and extendable hollow tube in a manner so as to be in fluid communication with the smooth segment of the at least one flexible and extendable hollow tube.

5. The device as claimed in claim 4, wherein the branch tube comprises a one-way check valve for one-way fluid flow from the branch tube into the smooth segment of the at least one flexible and extendable hollow tube.

6. The device as claimed in claim 5, wherein the one-way check valve is located at an end of the branch tube that is in fluid connection with the smooth segment of the at least one flexible and extendable hollow tube.

7. The device as claimed in claim 6, wherein an opposite end of the branch tube is configured to be coupled to a fluid source for injecting a fluid via the branch tube through the one-way check valve into the at least one flexible and extendable hollow tube, and from the at least one flexible and extendable hollow tube into the at least one first elongated inflatable padding and the at least one second elongated inflatable padding respectively to inflate the at least one first elongated inflatable padding and the at least one second elongated inflatable padding.

8. The device as claimed in any one of claims 1 to 7, wherein the first elongated rigid member with the at least one first elongated inflatable padding and the second elongated rigid member with the at least one second elongated inflatable padding are cooperatively operable to clamp a stomach in the closed configuration so as to restrict the stomach in a reversible anatomically manner.

9. The device as claimed in any one of claims 1 to 8, further comprising a securing arrangement having

a stomach fundus securing component along the first elongated rigid member or the second elongated rigid member, and

at least one stomach body securing component along the at least one flexible and extendable hollow tube of the cushioning arrangement and interposed between the first end and the second end of the at least one flexible and extendable hollow tube.

10. The device as claimed in claim 9, wherein the stomach fundus securing component comprises an eyelet structure.

11. The device as claimed in claim 9 or 10, wherein the at least one stomach body securing component comprises a fixing lug extending sideways from the at least one flexible and extendable hollow tube of the cushioning arrangement.

12. The device as claimed in claim 11, wherein the at least one stomach body securing component comprises a pair of fixing lugs extending sideways in opposite directions from a point along the at least one flexible and extendable hollow tube of the cushioning arrangement.

13. The device as claimed in any one of claims 9 to 12 in combination with claim 3, wherein the at least one stomach body securing component is along the first corrugated bellows segment or the second corrugated bellows segment of the at least one flexible and extendable hollow tube of the cushioning arrangement.

14. The device as claimed in claim 13, wherein the securing arrangement comprises a first stomach body securing component along the first corrugated bellows segment of the

at least one flexible and extendable hollow tube and a second stomach body securing component along the second corrugated bellows segment of the at least one flexible and extendable hollow tube.

15. The device as claimed in any one of claims 1 to 14,
wherein the first interlocking element of the interlocking arrangement comprises an elongated insert member extending backward from the second longitudinal end of the first elongated rigid member in a manner so as to overhang above a portion of the at least one first elongated inflatable padding along the first elongated rigid member, and
wherein the second interlocking element of the interlocking arrangement comprises a corresponding elongated hole extending longitudinally into the second elongated rigid member from the second longitudinal end of the second elongated rigid member.

16. The device as claimed in claim 15,
wherein the elongated insert member of the first elongated rigid member comprises at least one tooth along the elongated insert member, and
wherein the corresponding elongated hole of the second elongated rigid member comprises at least a corresponding socket for receiving the at least one tooth of the elongated insert member when the elongated insert member of the first elongated rigid member is inserted into the corresponding elongated hole of the second elongated rigid member.

17. The device as claimed in claim 16,
wherein the elongated insert member of the first elongated rigid member comprises an elongated plate-like structure having two rows of ratchet-like teeth respectively along two opposite longitudinal sides of the elongated plate-like structure, and
wherein the corresponding elongated hole of the second elongated rigid member comprises a rectangular cross-section having two rows of sockets respectively along two opposing longitudinal sidewalls of the corresponding elongated hole.