and a proximal bladder positioned around the thigh of the wearer. Due to the close proximity of the three tubes in the tubing, the connector must be appropriately sized to pass the fluid, e.g., air, and limit separation of the three tubes. Typically, the three tubes of the tubing are coupled together in a side by side manner. Conventional connectors used to connect the controller tubing with the garment tubing are only able to connect in a single orientation. In some implementations, the connector is not capable of connecting in more than one orientation or fails to be provide a fluid connection for all three tubes when connected in a second orientation, which could lead to improper functioning of the compression system and/or may cause harm or discomfort to the patient. Thus, there is a need in the art for a connector to connect all tubes (e.g., two, three, four or more) of the controller tubing and the garment tubing in more than one orientation (for example, straight and reverse orientation), while providing fluid flow in a single direction from the fluid source of the controller to the compression garment, regardless of the connection orientation, thereby ensuring proper functioning of the compression system and avoiding the possibility of causing discomfort or harm to the patient.

SUMMARY

[0005] A first aspect of the present disclosure includes a compression garment selectively engageable and operable by a controller for inflation via a reversible connector. The compression garment comprises a plurality of bladders and compression garment tubing including a plurality of garment tubes in fluid communication with the plurality of bladders at a first compression garment tubing end. A second compression garment tubing end is provided opposite the first compression garment tubing end and a first connector portion is located at the second compression garment tubing end. The controller controls communication with a source of fluid flow via controller tubing having a plurality of controller tubes in selective communication with the source of the fluid flow at a first controller tubing end. The controller tubing also includes a second controller tubing end opposite the first controller tubing end and a second connector portion located at the second controller tubing end. The first connector portion of the garment tubing and the second connector portion of the controller tubing are selectively reversibly connectable together to form the reversible connector. A plurality of fluid flow passageways extend within each of

the first connector portion and the second connector portion to form a first fluid flow channel when the first connector portion is coupled to the second connector portion in a first orientation. The plurality of fluid flow passageways within the first connector portion and within the second connector portion cooperatively form a second fluid flow channel when the first connector portion is coupled to the second connector portion in a second orientation. A fluid flow between a first one of the plurality of controller tubes and a first one of the plurality of compression garment tubes is communicated in a first fluid flow direction via the first fluid flow channel when the first connector portion and the second connector portion are connected in the first orientation. The fluid flow through the first one of the plurality of compression garment tubes and the first one of the plurality of controller tubes is communicated in the first fluid flow direction via the second fluid flow channel when the first connector portion and the second connector portion are connected in a second orientation.

[0005a] A second aspect of the present disclosure includes a compression garment selectively engageable and operable by a controller for inflation via a reversible connector, the compression garment comprising: at least one inflatable bladder; compression garment tubing comprising at least one garment tube in fluid communication with the at least one inflatable bladder at a first compression garment tubing end and having a second compression garment tubing end opposite the first compression garment tubing end; and a first connector portion located at the second compression garment tubing end; wherein the controller controls communication with a source of fluid flow is configured to be connected to the compression garment via controller tubing having a plurality of controller tubes in selective communication with the source of the fluid flow at a first controller tubing end and having a second controller tubing end opposite the first controller tubing end; wherein the controller comprises a second connector portion located at the second controller tubing end; wherein the first connector portion and the second connector portion are selectively reversibly connectable together to form the reversible connector; wherein a plurality of fluid flow passageways extend within the second connector portion to form a first fluid flow channel when the first connector portion is coupled to the second connector portion in a first orientation; wherein the plurality of fluid flow passageways within the second connector portion cooperatively form a second fluid flow channel when the first connector portion is coupled to the second connector

portion in a second orientation; and wherein a fluid flow between a first one of the plurality of controller tubes and the at least one compression garment tube is communicated in a first fluid flow direction via the first fluid flow channel when the first connector portion and the second connector portion are connected in the first orientation, and wherein the fluid flow through the at least one compression garment tube and the first one of the plurality of controller tubes is communicated in the first fluid flow direction via the second fluid flow channel when the first connector portion and the second connector portion are connected in a second orientation.

[0005b] A third aspect of the present disclosure includes a controller for controlling a source of fluid flow to a compression garment, the controller being selectively connectable to the compression garment via a first reversible connector portion, the controller comprising: a fluid source for providing fluid flow to the first reversible connector portion, wherein the first reversible connector is configured to be reversibly connected to a second connector portion of the compression garment, wherein the compression garment includes a plurality of bladders, a plurality of garment tubes in fluid communication with the plurality of bladders and the second reversible connector portion in fluid communication with the plurality of garment tubes wherein the first connector portion and the second connector portion are selectively reversibly connectable together to form the reversible connector; wherein a plurality of fluid flow passageways extend within each of the first connector portion and the second connector portion to form a first fluid flow channel when the first connector portion is coupled to the second connector portion in a first orientation; wherein the plurality of fluid flow passageways within the first connector portion and within the second connector portion cooperatively form a second fluid flow channel when the first connector portion is coupled to the second connector portion in a second orientation; and wherein a fluid flow between a first one of the plurality of controller tubes and a first one of a plurality of compression garment tubes is communicated in a first fluid flow direction via the first fluid flow channel when the first connector portion and the second connector portion are connected in the first orientation, and wherein the fluid flow through the first one of the plurality of compression garment tubes and the first one of the plurality of controller tubes is communicated in the first fluid flow direction via the

second fluid flow channel when the first connector portion and the second connector portion are connected in a second orientation.

[0005c] A fourth aspect of the present disclosure includes a system for applying compression treatment to a limb of a patient, comprising: a compression garment positionable about the limb of the patient and selectively engageable and operable by controller for inflation via a reversible connector, the compression garment comprising: a plurality of bladders; and compression garment tubing comprising a plurality of garment tubes in fluid communication with the plurality of bladders at a first compression garment tubing end and having a second compression garment tubing end opposite the first compression garment tubing end; and, a first connector portion located at the second compression garment tubing end; wherein the controller controls communication with a source of fluid flow via controller tubing having a plurality of controller tubes in selective communication with the source of the fluid flow at a first controller tubing end and having a second controller tubing end opposite the first controller tubing end; and a second connector portion located at the second controller tubing end; wherein the first connector portion and the second connector portion are selectively reversibly connectable together to form the reversible connector; wherein a plurality of fluid flow passageways extend within each of the first connector portion and the second connector portion to form a first fluid flow channel when the first connector portion is coupled to the second connector portion in a first orientation; wherein the plurality of fluid flow passageways within the first connector portion and within the second connector portion cooperatively form a second fluid flow channel when the first connector portion is coupled to the second connector portion in a second orientation; and wherein a fluid flow between a first one of the plurality of controller tubes and a first one of a plurality of compression garment tubes is communicated in a first fluid flow direction via the first fluid flow channel when the first connector portion and the second connector portion are connected in the first orientation, and wherein the fluid flow through the first one of the plurality of compression garment tubes and the first one of the plurality of controller tubes is communicated in the first fluid flow direction via the second fluid flow channel when the first connector portion and the second connector portion are connected in a second orientation.

[0005d] A fifth aspect of the present disclosure includes an adapter for providing selectively engageable fluid communication between a compression garment and a controller for inflation bladders of the compression garment, the adapter comprising: a first non-reversible connector configured to provide fluid communication from the controller to the adapter, wherein the controller controls communication with a source of fluid flow via adapter tubing having a plurality of tubes in selective communication with the source of the fluid flow at a first adapter tubing end and having a second adapter tubing end opposite the first adapter tubing end; wherein the adapter tubing has a first reversible connector portion located at the second adapter tubing end; wherein the first connector portion is selectively reversibly connectable to a second reversible connection portion to form a reversible connector, wherein the second reversible connection portion provide fluid communication with the bladders of the compression garment via a plurality of garment tubes in fluid communication with the plurality of bladders at a first compression garment tubing end and having a second compression garment tubing end opposite the first compression garment tubing end, wherein the second reversible connection portion is at the second garment tubing end; wherein a plurality of fluid flow passageways extend within each of the first connector portion and the second connector portion to form a first fluid flow channel when the first connector portion is coupled to the second connector portion in a first orientation; wherein the plurality of fluid flow passageways within the first connector portion and within the second connector portion cooperatively form a second fluid flow channel when the first connector portion is coupled to the second connector portion in a second orientation; and wherein a fluid flow between a first one of the plurality of controller tubes and a first one of a plurality of compression garment tubes is communicated in a first fluid flow direction via the first fluid flow channel when the first connector portion and the second connector portion are connected in the first orientation, and wherein the fluid flow through the first one of the plurality of compression garment tubes and the first one of the plurality of controller tubes is communicated in the first fluid flow direction via the second fluid flow channel when the first connector portion and the second connector portion are connected in a second orientation.

[0005e] A sixth aspect of the present disclosure includes an adapter for providing selectively engageable fluid communication between a compression garment and a controller for inflation bladders of the compression garment, the adapter comprising: a first non-reversible connector configured to provide fluid communication from the compression garment to the controller via the adapter, wherein the controller controls communication with a source of fluid flow via adapter tubing having a plurality of tubes in selective communication with the source of the fluid flow at a first adapter tubing end and having a second adapter tubing end opposite the first adapter tubing end; wherein the adapter tubing has the non-reversible connection portion located at the second adapter tubing end and a first reversible connector portion at the first adapter tubing end that is selectively reversibly connectable to a second reversible connection portion, wherein the first connector portion is selectively reversibly connectable to a second reversible connection portion to form a reversible connector, wherein the second reversible connection portion provides fluid communication with the controller via controller tubes in fluid communication with controller; wherein a plurality of fluid flow passageways extend within each of the first connector portion and the second connector portion to form a first fluid flow channel when the first connector portion is coupled to the second connector portion in a first orientation; wherein the plurality of fluid flow passageways within the first connector portion and within the second connector portion cooperatively form a second fluid flow channel when the first connector portion is coupled to the second connector portion in a second orientation; and wherein a fluid flow between a first one of the plurality of controller tubes and a first one of a plurality of compression garment tubes is communicated in a first fluid flow direction via the first fluid flow channel when the first connector portion and the second connector portion are connected in the first orientation, and wherein the fluid flow through the first one of the plurality of compression garment tubes and the first one of the plurality of controller tubes is communicated in the first fluid flow direction via the second fluid flow channel when the first connector portion and the second connector portion are connected in a second orientation.

[0006] In embodiments of the present disclosure, a controller is provided that is selectively engageable with a compression garment according to various aspects of the present disclosure.

[0007] In embodiments of the present disclosure, a system is provided for applying compression treatment to a limb of a patient, wherein the system comprises a compression garment according to various aspects of the present disclosure and wherein the compression garment is engageable and operable by controller according to various aspects of the present disclosure.

[0008] In embodiments of the present disclosure, a compression garment, controller and system are provided for applying compression treatment to a limb of a patient, wherein the compression garment includes at least one, and preferably more than one, inflatable bladder configured to apply compression treatment to the limb of the patient.

[0009] In embodiments of the present disclosure, a reversible connector is provided for use in a system for applying compression treatment to a limb of a patient, wherein the system comprises a compression garment and a controller selectively engageable with the compression garment via the reversible connector, wherein the compression garment includes at least one, and preferably more than one, inflatable