[0018] In one embodiment of the invention, a repeater is adapted to control a patch-sized pump worn on a subject for delivering fluid to the subject. In this embodiment, the repeater may have circuitry (i) for, over a given range, receiving signals from the pump, the received signals containing data relating to a volume of fluid delivered by the pump and relating to an alarm condition, and (ii) for, over a longer range exceeding the given range, transmitting the received signals to an interface for monitoring the volume of fluid delivered and the alarm condition. Such a repeater's circuitry may also provide for, over the longer range, receiving control signals from the interface, the control signals containing control information for controlling the pump, and for, over the given range, transmitting the control signals to the pump.

[0019] Such a repeater may have the characteristics of the repeater described above in connection with the repeater system. In addition to or in instead of having an alarm for an occurrence of an event wherein the repeater is separated from the wearable medical device by more than the given range, the repeater may also include an alarm for a flow occlusion or an air bubble detected in the pump.

[0020] In another embodiment of the invention, an adhesive patch system is provided for affixation of an object to a human body. Such an adhesive patch system may include two sets of adhesive members. In a first set of three or more members, each member includes an adhesive material on at least one side so as to attach to the body upon application of pressure, the members disposed around a central region. Similarly, in the second set of three or more members, each member includes an adhesive material on at least one side so as to attach to the body upon application of pressure, the members disposed around the central region. The members of the first set are spaced to allow the members of the second set to attach to the body in spaces provided between the members of the first set, and the members of the second set are spaced to allow members of the first set to detach from the body without detaching the members of the second set.

[0021] In one embodiment of the adhesive patch system at least one member is perforated so as to allow facile tearing off of the member. Tearing off of the member may relieve irritation of the underlying skin. Also, the central region is adapted to secure a wearable medical device. The adhesive patch may be semicircular. The adhesive patch may include a peelable backing strip. The members of the adhesive patch system may be attached to the central region by a fiber. The members of the first set may be a first color while the members of the second set may be a second color different from the first color.

[0022] Such an adhesive patch system may be used to attach an object to a human body by a method that includes the steps of: providing the first set of three or more members (each member of which, as noted above, includes an adhesive material on at least one side so as to attach to the body upon application of pressure, the members being disposed around a central region); attaching the first set of members to the body so that spaces are left between each of the members, so as to hold the object against the body; providing a second set of three or more members (each member of which includes an adhesive material on at least one side so as to attach to the body upon application of pressure, the members being disposed around the central region); attaching the second set of members to the body in the spaces between the members of the first set, so as to hold the object against the body with the second set of members; and after attaching the second set of members to the body, removing the first set of members from the body.

[0023] The object being attached may be a pump for therapeutic of fluid to the body through the skin. A cannula of such a pump may be passed through the skin to permit delivery of the fluid from the pump through the skin. In a preferred embodiment of the method, the cannula is not moved and is left passing through the skin while the second set of members is attached to the body and while the first set of members is removed from the body.

[0024] Similarly, the object being attached may be a probe for measuring a parameter in the body through the skin. Such a probe may be passed through the skin. In a preferred embodiment of the method, the probe is not moved and is left passing through the skin while the second set of members is attached to the body and while the first set of members is removed from the body.

[0025] The object being attached in such an adhesive patch system may be provided with air passages to permit airflow to the body under the object when the object is attached to the body.

[0026] An alternative adhesion system for affixing an object to a human body includes a central member adapted to secure a wearable object and having an adhesive material on at least one side so as to attach to the body upon application of pressure, and includes a plurality of peripheral members, each member including an adhesive material on at least one side so as to attach to the body upon application of pressure, wherein fibrous connectors are provided for connecting each of the peripheral members to the central member. In a preferred embodiment, the fibrous connectors are elastic.

[0027] In one embodiment of the invention, a method is provided for filling a reservoir with a liquid therapeutic. Such a method may include providing a fill station having a substantially rigid fill-station base for holding the reservoir at a tilt, and a substantially rigid fill-station cover attached to the fill-station base. The fill-station cover has a filling aperture for receiving fluid from a syringe. The fill-station cover and the fill-station base define a volume so as to prevent over-filling of the reservoir. Such a method also includes placing a reservoir in the fill station, closing the fill-station cover over the reservoir, applying a syringe containing the liquid therapeutic to the filling aperture, and ejecting the liquid therapeutic from the syringe through the filling aperture into the reservoir. In a preferred embodiment, any air in the reservoir after the ejection step is removed. A window may be provided in the fill station cover to view the amount of liquid in the reservoir. The amount of liquid may be estimated by comparing the liquid level viewed through the window to a fluid-level indicia.

[0028] In one embodiment of the invention, a base station is provided for a patch-sized infusion device, wherein the infusion device includes a disposable portion and a reusable portion, and the disposable portion and the reusable portion are connectable to each other via an attachment mechanism associated with the reusable portion. The base station includes a receptacle for holding the reusable portion of the infusion device, the receptacle including a member for cooperating with the reusable portion's attachment mechanism. The base station may also include a recharger for recharging a battery in the reusable portion. The base station may also include a communication interface between a