connector assemblies and systems that they have properly connected components and properly established fluid communication.

[0033] Even in view of the many attempts in the prior art to produce effective enteral fluid delivery sets that include connector assemblies and systems, manufacturers, distributors, users, fluid recipients, and those skilled in the relevant fields of technology have remained convinced that further improvements are possible. The market continues to seek improved and easier-to-use connector assemblies and systems that are substantially less susceptible to being forcibly introduced into incompatible and inappropriate applications. Under ideal circumstances, such improvements would also incorporate all of the advantages of the prior art, while withstanding the unexpected and incompatible, forcible use attempts.

SUMMARY OF THE INVENTION

[0034] Many of the problems of the prior art may ~~behave been~~ overcome with embodiments of the instant invention, and sought after improvements in the field may ~~behave been~~ achieved in new and novel ways. The improvements described herein may enable previously unavailable features including considerably improved ways to prevent, if not sometimes entirely eliminate, incompatible and inappropriate connections between the inventive enteral connector assemblies and systems, and non-compatible components such as legacy IV spikes.

[0034a] According to an aspect of the present invention, there is provided an enteral connection system adapted to communicate fluid between a receptacle and an enteral feeding set, the receptacle including at least one side wall defining an interior volume and having a finish that forms a fluid communication port defining a receptacle seal plane, the system comprising: an end cap receivable about the fluid communication port and formed with at least one cap wall defining an interior lumen for communicating the fluid between the receptacle and the feeding set; the cap wall having an interior face carrying at least one spike barrier substantially spanning the interior lumen to establish an interstice therein between the barrier and the receptacle seal plane when the end cap is received about the receptacle; at least one barrier port formed in the spike barrier and in fluid communication with the interior lumen; a periphery circumscribing the at least one barrier port and having a barrier geometry that establishes a barrier keyway; and wherein the interstice and at least one spike barrier establish a distance exceeding an extent length of at least one incompatible spike to prevent the at least one spike from extending to the seal plane.

[0035] The ~~innovative~~ connector assemblies and systems in the example embodiments also introduce new and more effective positive control connection capabilities, which may~~will~~ minimize the possibility for connector leaks, maximize the convenience of use for the user and/or fluid recipient, and increase the likelihood that such connector assemblies and systems will only be used with compatible components and with intended applications. Such improvements and advances in the art are also further augmented by new types of visual cues, and superior modes of dual-mode connect-disconnect tactile user feedback mechanisms.

[0036] In one preferred configuration of the invention, an enteral connection system is adapted to communicate fluid between a receptacle such as a fluid container, bottle, pouch, and/or receptacle, and an enteral administration or feeding set. The receptacle is formed from at least one or a plurality of sidewalls that cooperate to define an interior volume for containing a fluid.

[0037] The sidewalls also extend to a finish that forms a neck that extends to a rim defining a fluid communication port. An imaginary plane is also defined by the substantially planar rim, which is also referred to herein as a receptacle seal plane. An