What is claimed is:

1. An apparatus, comprising:

a housing defining a passage and an exit port in fluid communication with the passage; and

a pushrod, at least a portion of the pushrod being movably disposed in the passage, a distal end portion of the pushrod configured to move a drug dosage form through at least a portion of the passage to convey the drug dosage form through the exit port when the distal end portion of the pushrod is moved from a first position to a second position, a surface of at least one of the pushrod or the housing defining the passage being nonplanar to substantially prevent negative acceleration of the distal end portion of the pushrod within the passage from the first position to the second position.

2. The apparatus of claim 1, wherein the surface of the pushrod is in sliding contact with the surface of the housing when the distal end portion of the pushrod is moved from the first position to the second position.

3. The apparatus of claim 1, wherein the surface of the pushrod is in sliding contact with the surface of the housing when the distal end portion of the pushrod is moved from the first position to the second position, at least one of the surface of the pushrod or the surface of the housing is contoured.

4. The apparatus of claim 1, wherein the passage includes a delivery passage, the surface of the housing defining the delivery passage is contoured such that a first portion of the surface contacts the drug dosage form when the distal end portion of the pushrod is moved from its first position to its second position and such that the drug dosage form does not contact a second portion of the surface of housing defining the delivery passage when the distal end portion of the pushrod is moved from its first position to its second position.

5. The apparatus of claim 1, wherein the surface of the pushrod is in sliding contact with the surface of the housing defining the passage when the distal end portion of the pushrod is moved from the first position to the second position, at least one of the surface of the pushrod or the surface of the housing defines a plurality of grooves.

6. The apparatus of claim 5, wherein each groove from the plurality of grooves is parallel to another groove from the plurality of grooves.

7. The apparatus of claim 5, wherein a groove from the plurality of grooves has an elongate axis that is transverse to a direction defined by the movement of the pushrod from its first position to its second position.

8. The apparatus of claim 5, wherein at least one groove from the plurality of grooves defines a “V”-shape, a chevron shape, and/or herringbone shape, with the vertices of the grooves aligned with a direction of motion of the pushrod.

9. The apparatus of claim 1, wherein the surface of the pushrod is in sliding contact with the surface of the housing when the distal end portion of the pushrod is moved from the first position to the second position within the passage, at least one of the surface of the pushrod or the surface of the housing includes a plurality of protrusions.

10. The apparatus of claim 1, wherein:

the passage has a curved shape; and

the portion of the pushrod including the nonplanar surface is flexible to assume the curved shape of the passage when the distal end portion of the pushrod is moved from the first position to the second position.

11. The apparatus of claim 1, wherein:

the surface of the pushrod is a first surface;

the housing defines a hub volume within which a hub is rotatably disposed, a proximal end portion of the pushrod is coupled to the hub such that rotation of the hub and the proximal end portion of the pushrod causes the distal end portion of the pushrod to move between the first position and the second position; and

at least one of a surface of the housing defining the hub volume or a second surface of the pushrod being nonplanar.

12. The apparatus of claim 11, the second surface of the pushrod is in sliding contact with the surface of the housing defining the hub volume when the hub rotates within the hub volume.

13. The apparatus of claim 11, wherein the second surface of the pushrod is in sliding contact with the surface of the housing defining the hub volume when the hub rotates within the hub volume, at least one of the second surface of the pushrod or the surface of the housing defining the hub volume is contoured.

14. The apparatus of claim 11, wherein the second surface of the pushrod is in sliding contact with the surface of the housing defining the hub volume when the hub rotates within the hub volume, at least one of the second surface of the pushrod or the surface of the housing defining the hub volume defines a plurality of grooves.

15. The apparatus of claim 1, wherein the pushrod defines an opening configured to be detected by a sensor when the pushrod is moved within the passage.

16. The apparatus of claim 1, wherein a first portion of the pushrod is transparent to a sensor, a second portion of the pushrod different from the first portion is opaque to the sensor.

17. The apparatus of claim 1, wherein a cross-section of the nonplanar surface of the at least one of the pushrod or the housing defining the passage is nonparallel to a cross-section of the surface of the other of the pushrod or the housing defining the passage.

18. The apparatus of claim 1, wherein a portion of the surface of the pushrod is nonplanar and a portion of the surface of the housing configured to contact the nonplanar portion of the surface of the pushrod is planar.

19. The apparatus of claim 1, wherein the surface of the pushrod is in sliding contact with the surface of the housing defining the passage when the distal end portion of the pushrod is moved from its first position to its second position within the passage, at least one of the surface of the pushrod or the surface of the housing is contoured, the contoured surface

defining a geometric pattern that repeats along at least one of a length or a width of the contoured surface.

20. The apparatus of claim 1, wherein the surface of the pushrod is in sliding contact with the surface of the housing defining the passage when the distal end portion of the pushrod is moved from its first position to its second position within the passage, at least one of the surface of the pushrod or the surface of the housing is contoured, the contoured surface defining a random geometric pattern.

21. An apparatus, comprising:

a housing defining a delivery passage having at least one curvilinear portion and an exit port in fluid communication with the delivery passage; and

a pushrod, at least a portion of the pushrod being movably disposed in the delivery passage, a distal end portion of the pushrod configured to move a drug dosage form through the delivery passage to convey the drug dosage form through the exit port when the distal end portion of the pushrod is moved from a first position to a second position, at least one of a surface of the pushrod or a surface of the housing defining the curvilinear portion of the delivery passage being contoured such that the friction between the surface of the pushrod and the surface of the housing at the curvilinear portion of the delivery passage is reduced and negative acceleration of the distal end portion of the pushrod is prevented as the pushrod is moved from the first position to the second position.

22. An apparatus, comprising:

a housing defining a curved delivery passage and an exit port in fluid communication with the delivery passage; and

a pushrod, at least a portion of the pushrod being flexible and movably disposed in the delivery passage to convey a drug dosage form through the exit port when the distal end portion of the pushrod is moved from a first position to a second position, the housing and the pushrod configured to prevent or minimize frictional contact between the housing and the pushrod such that a distal end surface of the pushrod maintains contact with the drug dosage form when the pushrod is moved from the first position to the second position.

23. An apparatus, comprising:

a housing defining a delivery passage and an exit port in fluid communication with the delivery passage, the housing defining a hub volume within which a hub is rotatably disposed; and

a pushrod, a distal end portion of the pushrod being movably disposed in the delivery passage to convey a drug dosage form through the exit port when the distal end portion of the pushrod is moved from a first position to a second position, a proximal end portion of the pushrod coupled to the hub such that rotation of the hub and the proximal end portion of the pushrod causes the distal end portion of the pushrod to move between the first position and the second position,

a surface of the housing defining the hub volume having a contact reducing surface profile.

24. An apparatus, comprising:

a pushrod, a distal end portion of the pushrod configured to be movably disposed within a delivery passage of a drug delivery device to convey a drug dosage form through the delivery passage when the distal end portion of the pushrod is moved from a first position to a second position, a proximal end portion of the pushrod configured to be coupled to a hub such that rotation of the hub and the proximal end portion of the pushrod causes the distal end portion of the pushrod to move between the first position and the second position,

the proximal end portion of the pushrod being prefabricated to form an angle less than 180 degrees.

25. The apparatus of claim 24, wherein:

the delivery passage has a curved shape; and

at least a portion of the pushrod is flexible to assume the curved shape of the delivery passage when the distal end portion of the pushrod is moved from the first position to the second position.

26. The apparatus of claim 24, wherein the angle is defined by an intersection of a first portion of a longitudinal axis of the proximal end portion of the pushrod when in an undeformed configuration, and a second portion of the longitudinal axis of the proximal end portion of the pushrod when in the undeformed configuration.

27. The apparatus of claim 26, wherein the angle is between 90 degrees and 180 degrees.

28. An apparatus, comprising:

a pushrod, a distal end portion of the pushrod configured to be movably disposed within a delivery passage of a drug delivery device to convey a drug dosage form through the delivery passage when the distal end portion of the pushrod is moved from a first position to a second position, a proximal end portion of the pushrod configured to be coupled to a hub such that rotation of the hub and the proximal end portion of the pushrod causes the distal end portion of the pushrod to move between the first position and the second position,

a surface of the pushrod including a first contact reducing surface profile portion and a second contact reducing surface profile portion, the first contact reducing surface profile portion configured to traverse a bend or a curve of the delivery passage substantially without affecting one of the speed or acceleration of the pushrod.

29. The apparatus of claim 28, wherein the first contact reducing surface profile portion has a first coefficient of friction and the second contact reducing surface profile portion has a second coefficient of friction, the first coefficient of friction different than the second coefficient of friction.

30. The apparatus of claim 28, wherein the distal end portion of the pushrod is constructed of a first material and the proximal end portion of the pushrod is constructed of a second material, the first material different than the second material.

31. The apparatus of claim 28, wherein the second contact reducing surface profile portion is spaced apart from the first contact reducing surface profile portion by a portion of the surface of the pushrod that is devoid of the first contact reducing surface profile and the second contact reducing surface profile.