CLAIMS:

1. A nasal dilator for treating breathing problem, comprising:

a hollow nasal dilator body having a first end opening and a second end opening opposing the first end opening, wherein the hollow nasal dilator body longitudinally extends from the first end opening to the second end opening and being adapted for insertion into a user's nostril with the second end opening placed within the user's nasal passage so that the hollow nasal dilator body supports and dilates the nasal passage; and

a one-way flow resistance unit assembled to the hollow nasal dilator body and in proximity to the first end opening and away from the second end opening, wherein the one-way flow resistance unit comprises a one-way flow resistance valve and a valve seat in a flat configuration, a central part of the one-way flow resistance valve is fastened to a central region of the valve seat in a flat configuration, and the valve seat in a flat configuration is assembled to the hollow nasal dilator body, wherein the one-way flow resistance valve has at least one radial cut or at least one slit vent in a radial direction; wherein during the user's inhalation, the one-way flow resistance valve is deformed in an umbrella fashion under a force from the user's inhalation flow, and during the user's exhalation, the one-way flow resistance valve resumes to its original shape, and the one-way flow resistance unit creates an exhalation flow resistance higher than an inhalation flow resistance such that an expiratory positive airway pressure is generated within the nasal passage.

2. The nasal dilator of claim 1, wherein the one-way flow resistance unit is removable and interchangeable from the nasal dilator.

3. The nasal dilator of claim 1, wherein the one-way flow resistance unit is able to adjust a ratio of the exhalation flow resistance to the inhalation flow resistance.

4. The nasal dilator of claim 1, wherein the one-way flow resistance valve having the at least one radial cut further has at least one vent spaced from the radial cut.

5. The nasal dilator of claim 1, wherein the one-way flow resistance valve having the at least one slit vent in a radial direction further has a cut between the slit vent and a periphery of the one-way flow resistance valve.

6. The nasal dilator of claim 1, wherein the one-way flow resistance valve having the at least one slit vent in a radial direction is in a configuration that the one-way flow resistance valve has a multiple of slit vents spaced from each other and arranged along at least one radial direction.

7. The nasal dilator of claim 6, wherein the one-way flow resistance valve has a cut between at least one pair of the slit vents neighboring to each other.

8. The nasal dilator of claim 1, wherein the hollow nasal dilator body has at least one lateral vent in proximity to the first end opening.

9. The nasal dilator of claim 1, wherein the hollow nasal dilator body has a flow resistance structure unit in proximity to the first end opening.

10. The nasal dilator of claim 9, wherein the valve seat in a flat configuration has a rotatable flow resistance adjustment unit with capability to change relative orientation between the flow resistance adjustment unit and the flow resistance structure unit to adjust the exhalation flow resistance.

11. The nasal dilator of claim 4, further comprising a rotatable baffle assembled between the valve seat in a flat configuration and the one-way flow resistance valve having the at least one radial cut for blocking a partial area of the vent.

12. The nasal dilator of claim 1, further comprising at least one stopper positioned at an inner surface of the hollow nasal dilator body in proximity to the first end opening to confine a bending angle of the one-way flow resistance valve in the umbrella fashion upon the force from the user's inhalation flow.

13. The nasal dilator of claim 1, further comprising a stent assembled under the one-way flow resistance valve and connected to an inner surrounding wall of the hollow nasal dilator body, and the stent crosses a part or the whole of an inner radius of the hollow nasal dilator body.

14. The nasal dilator of claim 13, wherein the stent has one of the following configurations: cross shape, X shape, T shape and a singular rib.

15. The nasal dilator of claim 1, wherein the one-way flow resistance unit is provided with an individual color code based on its individual flow resistance.

16. The nasal dilator of claim 1, wherein an easy-to-remove means is formed along an inner surrounding wall of the hollow nasal dilator body in proximity to the second end opening to facilitate removal of a part of the hollow nasal dilator body via the easy-to-remove means.

17. The nasal dilator of claim 1, further comprising at least one sensing unit for detecting temperature, humidity, air flow pressure, breathing pattern, vibration, snoring and chemical materials inside the user's nasal passage.

18. A nasal dilator assembly, comprising two nasal dilators as claimed in claim 1 and a jointing piece connected between the two nasal dilators.

19. The nasal dilator assembly of claim 18, wherein the one-way flow resistance unit of each of the nasal dilator is able to adjust a ratio of the exhalation flow resistance to the inhalation flow resistance.

20. A sleep breathing therapy system, comprising:

a nasal dilator assembly as claimed in claim 18;

an electric console;

an oral interface; and

a sensing unit;

wherein the nasal dilator assembly is worn by a user’s nose in order that an expiratory positive airway pressure is generated inside the user’s nasal passage, the electric console provides a negative pressure via the oral interface delivering to the user’s oral cavity such that a negative pressure environment is generated inside the user’s oral cavity, the sensing unit detects at least one user’s physiological signal including temperature, humidity, air flow pressure, breathing pattern, vibration, snoring and chemical materials inside the user’s nasal passage, and the sensing unit transmits the detected physiological signal to the electric console for computation with an algorithm, and the electric console accordingly adjusts the negative pressure provided and then via the oral interface to control the pressure inside the user’s oral cavity.