Devices can be implanted into the body without having white running through the skin by using electroceuticals .

Electroceuticals is a wireless charge devices implanted into the body . these devices are easily implanted deep in the body and create new ways to treat illness and alleviate pain,

Mechanism of electroceuticals action

Since the key target of electroceuticals is neural circuit, the first perspicuous step towards development of this therapy is to precisely map the neural circuits associated with disease and consequently its treatment. This involves two levels:

1.

Anatomical – nerves and brain areas associated with disease are identified so as to clearly define the anatomic site of intervention.

2.

Signalling – exact electrical signal/action potential or patterns associated with health need to be identified, so that these patterns could be replicated.

Subsequently, in diseased states, individual electrical impulses and patterns will need to be identified to elicit the most effective therapeutic response. Finally, electroceutical devices in the form of a cuff, bristling with electrodes, will need to be developed which can be attached to nerve bundles to alter the electrical signals sent to brain on one hand or bodily organs on the other .
Simply put, the concept is to first map the nervous system and understand which nerves control which functions and then develop an implantable device to control this function. In diseased states it is a matter of rewiring the body if signals go

awry, a kind of volume control (like a radio) on a nerve; by changing the volume of the signals (using the device) it may be possible to control the organ. Any endocrine organ may be controlled this way; islets of Langerhans stimulated to produce more insulin at the time of meal ingestion or dilatation of airways during episodes of asthmatic attacks, just far more precise than the conventional drugs, with a real potential to optimize and personalize the therapy but at the same time with far less side-effects.. These devices might use microchip-controlled electrode arrays and may be powered by electromagnetic energy (heat, light, magnetic), mechanical or even chemical energy harvested from body's resources. First generation of these devices were available in size of a pill or a pen, but with current technology they have reached the size of a pin-head. However, the future will be micro- or even nanoscale devices.