

# Earthworms in Traditional Chinese Medicine

(Oligochaeta: Lumbricidae, Megascolecidae)

Yu Shen

**Abstract.** The earthworm, 蚯蚓 (*qiu yin*) was first documented in the Divine Farmer's *Materia Medica Classic* (神农本草经) around 200 B.C – 200 A.D. The 365 drugs in this book were classified into three groups: up, middle, and low. The 120 drugs in the up group are regarded as non-toxic and benefit qi (able to strengthen the vital body energy), so they can be taken regularly. The 120 drugs in the middle group are toxic or non-toxic, and used for treating diseases and supplementing deficiency. The drugs in the low group are toxic, and can eliminate “evil” (anything which causes illness) and should not be taken for a long period of time (Toxic implies the drug has strong medicinal effect and could have side effects so should be used properly and cautiously). The earthworm belongs to the low group. But in later medical literature, the earthworm is considered as non-toxic (Compendium of *Materia Medica* 本草纲目, 1552-1593).

**Key words.** Earthworms, traditional medicine, China.

## Traditional use of earthworms

In the Chinese language, the name earthworm 蚯蚓 (*qiu yin*) implies the movements of the worm, moving forward and curving as a mound. In Traditional Chinese Medicine (TCM), the earthworm is called “earth dragon” (地龙 *di long*). According to the largest Compendium of *Materia Medica* (本草纲目, 1552-1593) in the 16<sup>th</sup> century, earthworms are found around swamps, pond areas, or in moist soil. They emerge in summer and hide in winter. If it rains, they will come out of the earth. If it is sunny, they will “sing” at night. The earthworm used in medicine has a white segment or “neck” (see picture below).

**Earthworm preparation for medical use:** Here are three different ways recommended to prepare the earthworm for medicinal use: to grind the dry earthworm into powder, or make a decoction, or burn it into ash depending on the situation (Compendium of *Materia Medica* 本草纲目, 1552-1593). In the modern text book, there are two kinds of earthworms mentioned, *Pheretima asiatica* (Michaelsen, 1900) and *Aporrectodea caliginosa trapezoids* (Dugés, 1828), both suitable for medicinal use. The former can be found along the southeast coast of China, and the later is more popular in different places of China.

**The medicinal preparations:** The earthworms are suffocated by grass ash and then sun-dried after the ash is cleaned off. The inner and outer parts of the earthworm are cleaned and then sun-dried (Chinese Pharmacology 中药学, 1978). The recommended dosage for dried earthworm is 9-18 grams. For fresh earthworms, the dosage is 15-30 grams. For earthworm