

## Dips

Dips are generally more effective to rid koi of external parasites and bacteria than long term baths. Although dips do induce stress in the fish, the high concentration of the dip makes it less likely that any parasites will survive. and the high Dip treatments usually also stimulates mucus production, which helps to expel organisms from the skin.

Dip new arrivals before introducing them to a pond environment or the quarantine tank. Observe the fish at all times during the dipping process; if they weaken they must be removed immediately from the dip before they lose consciousness. Plan the treatment, making sure everything is ready. Having a second person on hand with a stopwatch, to call instructions out loudly, is a great help, especially the first time

.It is a good idea to keep a record, weather as an individual fish or as ro the pond as a whole. A written record becomes an easy reference for future treatments, and will also be useful if you have to call in professional help.

**Salt:** A dip in a 5% salt solution (500 g per 10 l, half pound per gallon UK) for 70 seconds can be a quick and effective way to strip parasites from a koi. Three successive dips 12 - 24 hours apart are recommended.

**Magnesium sulphate and salt:** A mixture of 3% magnesium sulphate (Epsom salts,  $MgSO_4$ ) and 0,7% salt is a very effective as a 10-minute dip that will also eradicate gill fluke. Dissolve 300g  $MgSO_4$  and 70g NaCl per 10 l of water.

**Potassium permanganate:** Dip for 7 minutes in a 1 g per 10 l solution. Three consecutive dips over a period of five days will not only kill most flukes and parasites, but will strip necrotic tissue from bacterial and fungal infected gills and ulcers. This is recommended for use on larger fish since smaller, sick fish may be helped "over the edge".

Note: The metric system is widely used by the scientific and medical community, because it is standardise, easy to use, and has a lower risk of errors. Anyone applying treatments at home is advised to adopt this system. The fist step is to know the volume of your pond in liters.

(Extracted from page 135 of *Koi – A handbook on keeping Nishikigoi* by Servaas de Kock and Ronnie Watt (2006). Available at [www.amazon.com](http://www.amazon.com) and [www.kalahari.net](http://www.kalahari.net) online)