In March 2011 the new Nintendo 3DS went on sale in Switzerland and Germany. The game console features an attractive 3D display without the need of special glasses. By means of a so-called parallax barrier the depth perception can be increased or even turned off. In adults excessive use may cause symptoms such as headaches, dizziness or nausea. In children a visual impairment could be reinforced and an amblyopia could become manifest. Excessive, long hours of use especially in children could have its risks and the possible long-term effects remain unpredictable. On the other hand in the future it is likely that these kinds of 3D screens will be of considerable diagnostic value in orthoptics. The issue is likely to become a more important issue in everyday life in the future. As there is hardly any information available in the medical literature on this subject it is the aim of this article to provide an overview of the technology and physiology with the advantages and disadvantages.