



DESIGN & MANUFACTURE

AOK Health, for over 10 years, has been involved in the design and innovation of new products and the improvement of existing rehabilitation, exercise and performance equipment.

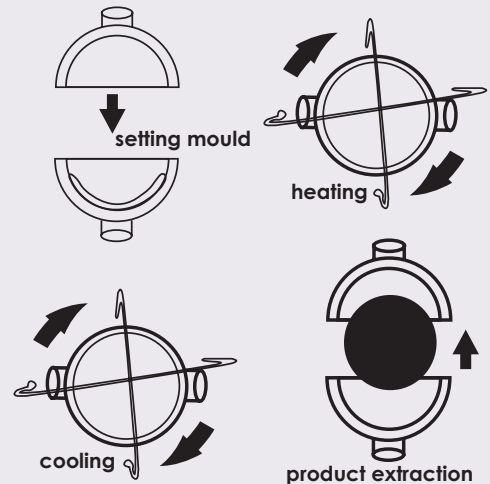
Our Exercise Engineering Department provides a unique skill base to evaluate and/or design the tools and techniques of product development. This includes knowledge of the physiological response of the body when exercising or performing simple functional tasks and interacting with various kinds of equipment.

By fostering research within AOK and with Universities across Australia we continue to develop a wide range of creative, analytical, experimental and practical skills to deal with the many problems that must be overcome to improve function control, balance and skill acquisition for rehabilitation, fitness, well-being or sporting performance.

Unique Moulded Products

A 5-year evaluation program at the University of Newcastle helped in the development of Duralon™ a form of PVC. Duralon™ is ideal for rotational moulding. This is the process used for hollow objects such as mediBall®, DuraBall™, massage balls, Dura Disc™ and medicine balls. Rotational moulding is carried out in four steps. First, the required weight of Duralon™ (each ball size is different) is placed into the mould which is then closed.

While rotated around two rotational axes the mould is first heated to the melting and curing temperature of the plastic. Then it is cooled before opening and the finished mediBall® is removed, then inflated and tested. It is then inspected, vacuum deflated and packed for shipment.



EVALUATION AND TESTING

AOK commenced its Swiss ball development and testing program in 1996. The University of Newcastle was selected because of its international reputation in materials testing. Testing protocols have been developed which are considered the best in the world for inflatable PVC products. Since then mediBall®, MaxBall™ and DuraBall™ have been tested to ensure product consistency and evaluate new manufacturing protocols. These Swiss Balls have variously supported static loads well in excess of 4,000 kilograms with burst-resistance to a load of 500 kg. This does not mean "puncture proof" but protects you from explosive deflation. Burst resistance means AOK Swiss balls are designed to take approx 30 secs to deflate if accidentally punctured. We also test for deflation under load and durability.



Usage and Distribution -

Why We Are The Best

AOK has invested in the combination of design, manufacture, management and materials with physiology, anatomy and bio-mechanics. We continually strive to improve our industrial and computer-aided design together with scientific aspects of rehabilitation, sports and exercise. This has let us balance product design with functional human performance.

In the competitive world of exercise equipment manufacture AOK Health™ has designed a range of high quality Swiss balls which resist compression when under load – such as when sitting or during exercise. This provides 5 essential benefits:

1. Provides a firm seat, the elasticity of the convex surface promoting neutral lumbar lordosis while allowing postural movement and stimulating segmental stabiliser activation.
2. The AOK™ range of balls feel firm and substantial which promotes confidence in the user during sitting and exercise.
3. While exercising it slows the reaction speed of the mediBall Pro so that the proprioceptive/sensory pathways are stimulated throughout the entire range of motion. There are no 'blind spots' due to ballistic motion.

4. Retains its spherical form and thus instability to enhance the body's stabilisation responses.

5. New Duralon™ burst resistance technology for safety. Promotes long ball life due to resistance to wear, tear and stretching.

Distribution

Over the past 4 years AOK Health has won a number of awards for its business performance. For example in 2003 AOK won the prestigious "Fastest Growing Wholesale Business" Award and in 2004 won Best Trainer for Warehouse & Logistics Operations Award. We can export anywhere in the world using trackable parcels at a reasonable price – air freight or sea freight.

AOK's modern manufacturing and warehousing facilities utilise the latest in computer based order/product tracking systems. You can trace your delivery from factory to your warehouse door.



THERAPY / EXERCISE BALLS - mediBall[®] & Duraball[™]

SAFETY CONSIDERATIONS

No Swiss, Therapy or Exercise Ball is 100% safe as it is not possible to test every single ball. By having an ongoing Quality program in place AOK endeavours to reduce the risk of ball failure. We pre-inflate and inspect every ball we make and have achieved exceptionally low numbers of faulty balls. Over the past 5 years we have had a return rate of less than 0.2% - this compares with 10%-15% of some European and Asian balls. It is critical that the user care for the balls they use - much like maintaining a car tyre.

The more hours of use and abuse it gets - the shorter its life. This is especially so in a commercial environment where there is little supervision this may be reduced to 3 months or less. This is result of the balls being kicked around and striking sharp edges, which damages the inner surface of the skin - not always apparent from the outside. These leave resulting fracture lines which may totally reduce its burst resistant qualities.

Over recent years there have been reports of anti-burst and burst resistant Swiss balls exploding during use and injuring users. Not all balls are the same quality despite what their labels may indicate and the use of balls may put the user at risk of serious injury.

Here are some important considerations:

Know the Ball's History – unless you know that the Swiss ball you are about to use has not been damaged **DO NOT USE IT.**

Abuse and Damage: Swiss balls are very commonly kicked around a gym or studio. Impact with an edge (equipment, furniture etc) may damage the inside of the ball surface. This may not be apparent on casual inspection. This may diminish the burst resistance totally and leave the user at risk. Always look closely for surface marks and abrasions. If you are not sure do not use the ball.

Incorrect Inflation: The materials for Swiss balls is almost always a form of PVC. They all have different performance characteristics. Always follow the inflation instructions exactly to avoid damage to the ball skin. Incorrectly inflated Swiss balls may lead to catastrophic failure.

Age of Swiss Ball: Swiss balls should be treated like car tyres. The more and harder they are used the sooner they will lose their burst resistance. We suggest that gyms and studios should rotate their Swiss balls every 3 months if there is high use or the possibility of abuse. Domestic users have reported 10 years of use when the Swiss ball is well cared for.

Know the User's History – Swiss balls provide an unstable environment up to 85cm above the floor. If the user has an injury, medical condition or lack of neuromuscular ability to deal with this dangerous environment – they are at risk of injury if they fall. Always seek advice from a trained professional if you are unsure.

Evaluate The Environment – **Do not** exercise near equipment that you may fall against or which may damage the Swiss ball. Ideally you should do ball exercises on a padded floor or mat to reduce impact injuries if you fall or the Swiss ball bursts. Balls that are left in direct sunlight, in cars or hot environments are likely to have a reduced burst resistance.

