

Appendix 2: Ball Size

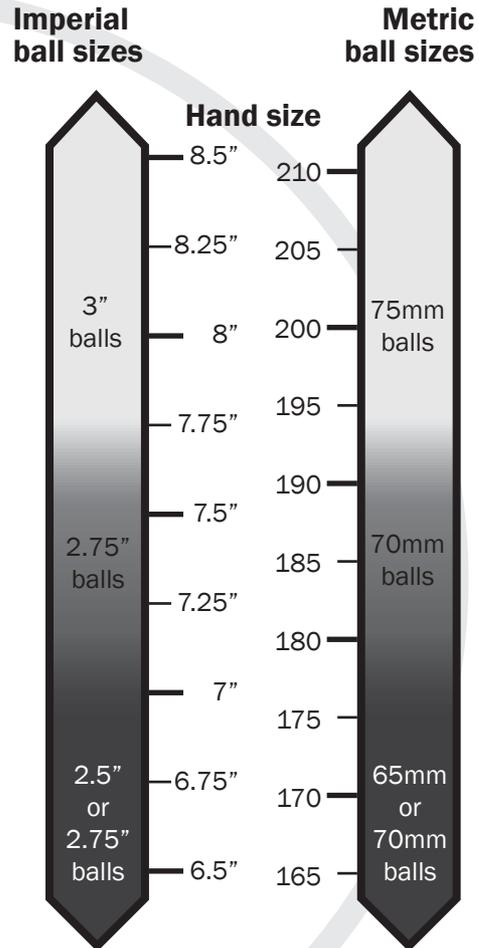
Hand to Ball Size Chart For Learning Multiball

To complete the lessons in this book you will need 4 balls - this appendix will help you decide which size balls are suitable for you to start learning Multiball Contact with.

Measure your hand as shown opposite and then use the chart on this page should help you decide what size balls to buy. Most ball manipulators use 70 - 75mm (2 3/4" - 3") diameter acrylics.

Those with very small hands might want to use 65mm (2.5") balls.

Larger balls lead to smoother Contact but can be a little more of an effort to learn with. No matter how large your hands, balls larger than 76.6mm (3") are not recommended for beginners.



This chart doesn't show the upper limits of what is possible. Highly skilled 190mm hands can perform comfortably with pyramids of 85mm balls, and my 200mm hands can just about spin a pyramid of 100mm acrylic balls, but because of the weight and the strain, this is not sensible. Just 30 seconds will ensure that my hands and wrists are in pain the next day.

Measuring Ball Size

It's very difficult to accurately measure the diameter of a ball, but it can be useful to tell the difference between 3" and 75mm balls, this is the best method:

Wrap a piece of paper around its equator (middle), and mark off the length of the circumference.

Measure this length with a ruler and divide it by Pi ($\pi=3.142$). For example:

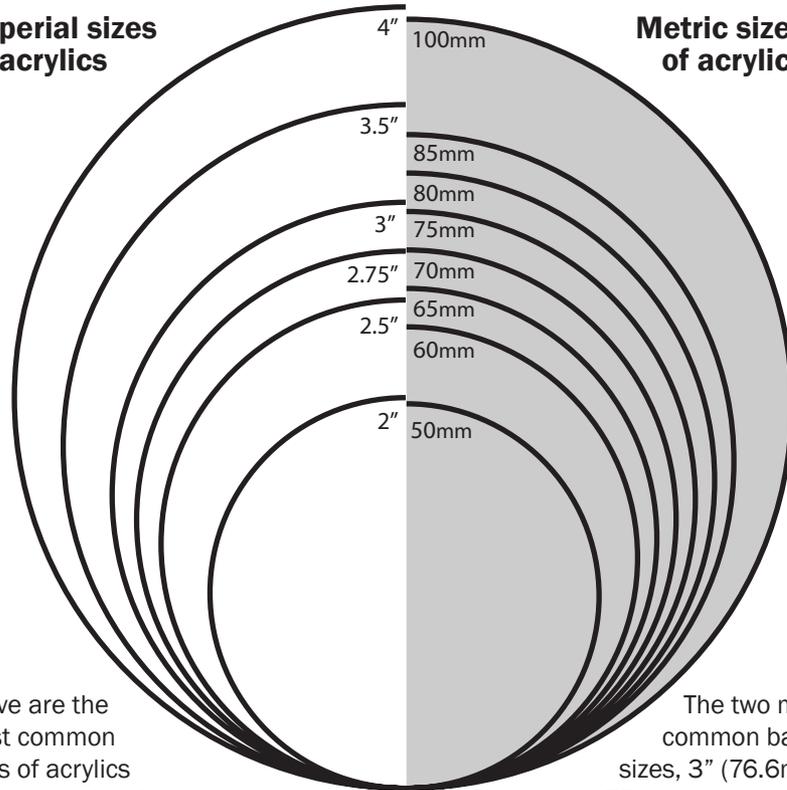
1) If the circumference is 235.6mm then $235.6 / 3.142 = 75\text{mm}$ diameter ball.

2) In inches you measure 9.42" (239.4mm) then $9.42 / 3.142 = 3"$ (76.6mm) diameter.

Common Ball Sizes

**Imperial sizes
of acrylics**

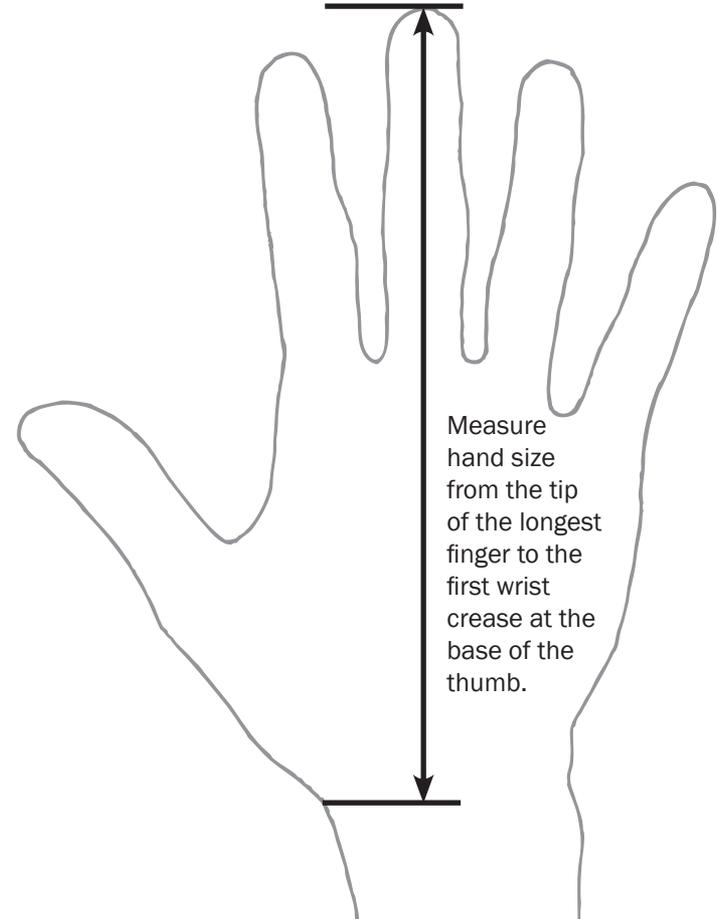
**Metric sizes
of acrylics**



Above are the most common sizes of acrylics available today. American manufacturers make Imperial sizes (left), European manufacturers tend to make metric sizes (right).

The two most common ball sizes, 3" (76.6mm) and 75mm, are very similar, and are easily confused. That 1.6mm difference is annoying in multiball. It's best not to mix the two.

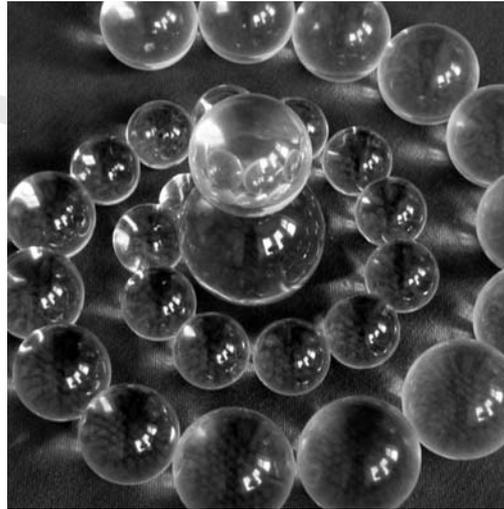
Measuring Hand Size



Big Balls

Larger balls have the advantages that they are more smooth, stable and far more visual. The disadvantages of larger balls are that they are more expensive, feel **huge** when you start working with them, and the extra weight can put more strain on your wrists and fingers.

Some more experienced multiball manipulators have upgraded in size and weight from standard 3" acrylics to larger 80mm or even 85mm. This makes 8 ball Contact look fantastic, super big and super slow, but the extra strain and weight can cause a few problems. And can be limiting when it comes to 9, 10 and 11 ball manipulation.



Cost of Acrylics

The cost of acrylic balls varies with size. The following is an estimate of 2006 prices:

70mm or 2.75":

- Cost £20, €22 or US\$25 each ball

75mm or 3":

- Cost £25, €34 or US\$28-35 each ball

100mm or 4":

- Cost £45 - £60, €69 - 82 or US\$85 each ball!

Small Balls

Small balls are cheaper, and tend to visually disappear into the hands, they are generally lighter and more skittish (less stable) than larger balls.

Some manipulators find slightly smaller balls can be an advantage for the first month or so of learning palmspinning. After that, they often wish to change up to larger balls.

I use 50mm (2") acrylics to practise palmspinning 7 balls in one hand. Balls this small are not very smooth or stable. Generally I don't practise with less than 5 of them in each hand.

Smaller balls are also popular for combining magic with Contact, as they can be palmed more easily ("palming" is a magic technique used to make objects appear and disappear).