THE FACTS ABOUT SPRUNG FLOORS FOR DANCE

"RAD students and teachers use sprung floors all over the world for our classes and events because they provide our dancers with the necessary traction and spring, helping them to dance safely, with confidence and to the best of their ability."

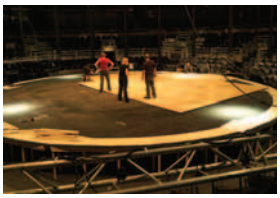
LYNN WALLIS

ARTISTIC DIRECTOR
ROYAL ACADEMY OF DANCE

"Professional dancers know that having the right environment in which to train and perform makes a huge difference to their health, injury levels and performance. Investment in new and refurbishment of existing spaces for dance with appropriate flooring have meant that, since the year 2000, ballet and contemporary dancers cite unsuitable floors as causes of their injuries significantly less often than in the preceding decade (*Laws, 2005, Fit to Dance 2*, published by Dance UK). However, dancers also highlighted that one of the most common causes of injury was the recurrence of an old one. It is imperative, therefore, that local authorities ensure every community has access to a safe, suitable space for dance, so that dancers of all kinds and at all stages of life can enjoy the health benefits of dance without risking injury."

HELEN LAWS

HEALTHIER DANCER PROGRAMME MANAGER
DANCE UK



Above and right, sprung floors maunfactured by British Harlequin plc at Laban, London, The Roundhouse, Camden Town and Schweizerische Ballettberufschule, Zurich

"It is as dangerous to dance on a hard floor as it is to constantly dance on different types of floor. As far as private dance schools are concerned, they should choose their dance floors more carefully. The best preventative method will always be the installation of a correct dance floor. In my opinion, a dance floor should be neither too supple nor too soft.

A hard floor has the effect of causing serious return shock waves and can bring about injuries or premature wear in the cartilage. A soft floor causes the muscles, and therefore the tendons, to work harder. Additionally, a floor which is too soft can be dangerous for dancers because of the effect of surprise."

SURGEON BONI RIETVELD, MD

HEAD OF THE DUTCH MEDICAL CENTRE FOR DANCERS AND MUSICIANS, THE HAGUE,
CO-FOUNDER OF THE DUTCH PERFORMING ARTS MEDICINE ASSOCIATION

Tony Hall's Dance Review proposed some key challenges for the future of dance education in the UK, including the importance of starting with the right sprung dance floor

According to the Government's response[1] to the recently published Dance Review, "information gathered from the dance audit indicates that schools need clear guidance and education on the necessity of sprung floors for dance". Government ministers commissioned Tony Hall (chief executive of the Royal Opera House) to lead a review of dance education and youth dance and the Dance Review sets out what he sees as the key opportunities and challenges for young people to access dance both in schools and in the wider community. For this article Dancing Times invited some influential experts to give their views on how they regard the importance of sprung floors for dance.

Schools get new dance floors; what about village halls?

The report was broadly welcomed by Rachel Rist M.A., director of dance at the Arts Educational School, Tring, past president and current chair of education committee, International Association for Dance Medicine and Science (IADMS). "It was so pleasing to see that, at last, proper recognition of the importance of a sprung floor had such a prominent position in Tony Hall's review. Indeed, it was worded as strongly as 'inadequate facilities should not be sidelined as it is core to offering children and young people the opportunity to dance'. Thank goodness. Those teachers who have laboured in unsuitable halls with hard floors and unforgiving surfaces will be pleased to know that it has been accepted that the impact this can have is to put people off dance. The benefits of a properly sprung floor are many. The shock impact caused by landing is absorbed in two ways; some rebounds back up through the body and some gets transmitted to the floor. The better the floor, the less shock the body has to absorb. When landing from a jump, a body can weigh three to five times its own weight as it descends, so the more shock a floor can absorb the better. A minimum standard would be that just over 50 per cent of shock should go into the floor and the rest be absorbed by the flexing of the ankles, knees and hips on landing. As a director of a professional school, I am so grateful that all our floors are properly sprung for the dance students.

Top: The Jerwood Space, London

Bottom: Merce Cunningham Dance Company at the Tate Modern

However, we have experienced on occasions times when students have attended summer schools or events at other venues without sprung floors and the result has been shin splints, stress fractures and joint damage. This can force a young dancer to have to take weeks or months off training to recover. As a past president of the International Association for Dance Medicine and Science, it was widely recognised that the correlation with dance injuries and unsuitable floors was established. IADMS will also be delighted that the UK government has taken this step in its response to the review by saying: 'schools need clear guidance and education on the necessity of sprung floors for dance'.

"The response (by Lord Andrew Adonis and Margaret Hodge) said that 'dance is part of the discussions about school design and the provision of a sprung floor in the new Building Schools for the Future programme for schools with over 450 pupils… The demand for adequate facilities will become an important issue'. This is indeed good news for schools with pupils over that number. But I also wonder if it has been recognised (I could not find it in the report) that a huge number of dance classes take place in church halls, village halls and other venues not associated with a school. It is in these small venues that the core of much of the training of early dancing takes place and teachers are no doubt having to manage with floors that are barely slip-resistant, never mind sprung. It would have been good to see this recognised in the report and local authorities put under pressure to address this large loop-hole. Until then, it might be wise for teachers to hope that improved sprung floors in schools (and especially in new builds) will allow the dance hall to be hired out for local dance schools. British Harlequin plc offers many options for dance teachers to have portable dance floors, so perhaps it might be interesting to see what would happen if a dance teacher waved the Dance Review at their local authority for a village hall or church hall and see what happens."

Footnote

1. Extract from response: "The guidance and scope for the Building Schools for the Future programme allows for the provision of a sprung floor in any new BSF school with over 450 pupils, and DCSF (Department for Children, Schools and Families) has provided extensive advice about dance facilities. We believe that through the response to the Review the profile of dance will continue to rise and therefore the demand for adequate facilities will become an important issue. Furthermore, information gathered from the dance audit indicates that schools need clear guidance and education on the necessity of sprung floors for dance."

Why dance floor characteristics are different from sports and other floors

To find out what constitutes a sprung floor, a spokesman for British Harlequin plc, explained that "it is a common assumption that a well-designed sports floor will suit the needs of dancers. But there are two intrinsic differences – the construction of the sprung subfloor and the performance surface. Along with some shock absorption, most indoor sports require a high degree of energy return and a requirement for adequate ball bounce. Evidently, dancers have scant interest in ball bounce, but they are vitally focussed in a different way on a combination of shock absorption and energy return that a sprung subfloor can provide. There are no hard and fast rules, but it is clear that female dancers tend towards shock absorption – without any sponginess – whereas the men appreciate a dance floor with more spring for their often more energetic choreography. Indoor sports people by contrast can tolerate a stiffer floor as they usually have cushioned footwear – a luxury barred to dancers.

"The main performance surface criterion for dancers is slip-resistance, disconcertingly dubbed 'traction' by many in the dance community. Although sports people share the abhorrence of the risk of slipping and falling, they again are generally protected by their footwear from floors that might be considered a slip hazard for dancers, for example some hard-lacquered wood floors. Lower limb problems such as tendonitis, 'shin splints', knee pain and ankle strain can all be attributed to incorrectly specified sprung floors and can take several weeks of physiotherapy and recovery time to correct.

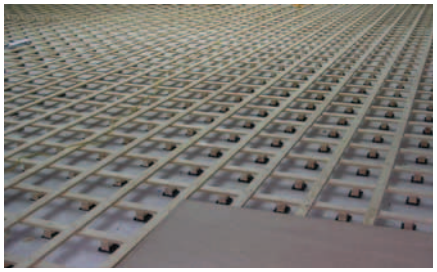
"Historically the choice of performance surface was between a wooden floor and linoleum, until the advent of purpose developed vinyl floors during the 1970s. Although it may be tempting to opt for a wood floor for purely aesthetic reasons, or a commercial (but unsuitable) grade vinyl for reasons of cost,today there are many options specifically designed for dance. A well-installed hardwood sprung floor, properly finished and maintained, does look attractive, and specifically for ballroom dance is a desirable option. Softwood floors are rarely an option, because even with a lacquered surface they are too readily susceptible to damage, gouging and splintering.

"The desire for a floor with give was accelerated by the fashion in ballroom dancing before and after World War II. These floors often used coil or leaf springs and, as genuinely sprung floors were far too bouncy for ballet or contemporary artistic dance, the need to provide semi-sprung floors – particularly for ballet – led to considerable modifications. In the last 50 years metal springs have largely given way to resilient blocks or pads made of rubbers or polymers. With modern floor construction methods the trampoline effect of the early sprung floors has been suppressed and these modern floors for both sports and dance are generally referred to as semi-sprung. Nevertheless, the distinction has been forgotten and for convenience today we loosely refer to both types of floor as sprung floors."

"Dancing on unsuitable and un-sprung floors can literally end a dancer's career. The damage caused to muscles and joints by repeated impact on a solid surface can injure a dancer for life. Evidence of safe dance practice is an element of all CDET quality assurance procedures and sprung floors contribute enormously to the wellbeing of students in training and professional dancers alike."

SEAN WILLIAMS

DIRECTOR, COUNCIL FOR DANCE EDUCATION AND TRAINING (CDET)



Installation of Harlequin WoodSpring at the Royal Ballet Studios, Royal Opera House, Covent Garden

Original article featured in Dancing Times Magazine

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Sprung floors – essential for safety

"In the experience of many dance teachers, the key benefit of a proper sprung dance floor is the shock absorption which helps to ensure less chance of spinal, ankle or leg injury. This enables dancers to feel more secure when performing any type of elevation. The floor also gives with the body and provides a better surface for movements, taking the performer quickly from standing to floor level, involving rolling, landing and falling, i.e. movements from high to low level involving very fast dynamics."

PROFESSOR JOAN WHITE
DIRECTOR OF EDUCATION AT THE RAD

Edinburgh's Telford College

Readers might be interested to know that there are two useful guides to dance floors, both available on request from British Harlequin plc. *Specifying Dance Floors: A Guide for Architects*, as the title implies, is aimed at architects and specifiers planning new dance floor facilities, while *The Guide to Dance Floors*, conceived in conjunction with Dancing Times, is written with dance teachers and dancers in mind.

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