



## Alternative use of a splash screen

Emmanuel THIENPONT, Raphael DE VLOO

From the Hôpital Français, ULB, Brussels, Belgium and the Europe Hospitals, St-Michel, Brussels, Belgium

Eye protection during surgical procedures has gained more attention with the increasing prevalence of viral diseases among the population (1, 3-5). Until now, no vaccination exists against Hepatitis C and HIV (1). Prevention therefore remains crucial (4, 5). Viral screening has no sense as a routine technique, since often results are only known after the surgery (4). Financial budgets become tighter and systematic screening is not a reasonable option. The systematic use of eye protection wear is proposed (3-5).

In general, studies show that operating room personnel do not like eye protection because of an uncomfortable feeling and condensation, limiting the surgical visualisation (5).

### TECHNIQUE

A surgical face mask is first applied in a standard fashion. The splash screen (Technol Fluidshield Fog-free surgical mask, Kimberly-Clark, USA) can now be applied according to our technique. The mask part is rolled twice which gives a sweat band effect. It will be applied to the forehead with adequate tension. In this way the splash screen is reversed. The reversed visor protects the face and the eyes completely (figs 1, 2).

Because the nose is covered by a separate mask and the application with this modality allows ventilation from the side of the visor the problem of condensation is reduced.



**Fig. 1.** — Frontal view of the splash screen after application

---

■ Emmanuel Thienpont, MD, Orthopaedic surgeon.

*Department of Orthopaedic Surgery, Hôpital Français, ULB, Brussels, Belgium.*

■ Raphael De Vloo, MD, Orthopaedic surgeon.

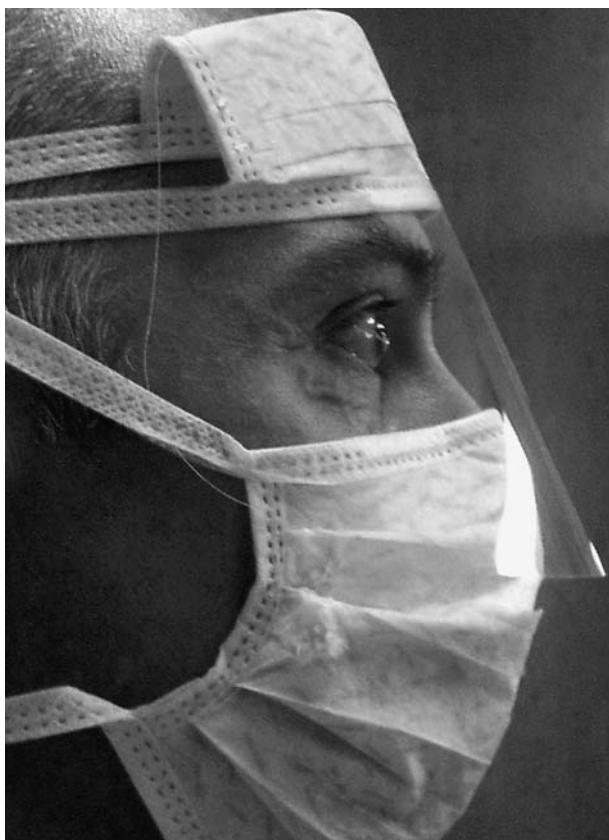
*Department of Orthopaedic Surgery, Europe Hospitals, St-Michel, Brussels, Belgium.*

Correspondence : Emmanuel Thienpont, Department of Orthopaedic Surgery, Hôpital Français – ULB, Av. Josse Goffin 180, B-1082 Brussels, Belgium.

E-mail : ethienpont@yahoo.com.

© 2007, Acta Orthopædica Belgica.

---



**Fig. 2.** — Side view of the splash screen after application

## CONCLUSION

Sophisticated ventilated shield-systems (T5 Personal Protection System, Stryker Instruments, Kalamazoo, USA) have been developed and are used with great success. Because of economic limitations and facility in use, more simple systems have been developed with a mask containing a plastic shield or visor for eye protection (2, 5). The usual problem with these masks is condensation and fog production onto the shield (5). Fog production has the potential disadvantage of limiting vision during the surgical procedure (5). The authors describe an alternative use of the same shield without any technical modifications.

## REFERENCES

1. Fry DE. Occupational blood-borne diseases in surgery. *Am J Surg* 2005 ; 190 : 249-254.
2. Kantorowicz O, Rees RJ. Safety screen for protection against splash during the inoculation of small animals. *J Pathol Bacteriol* 1950 ; 62 : 448-449.
3. Marasco S, Woods S. The risk of eye splash injuries in surgery. *Aust N Z J Surg* 1998 ; 68 : 785-787.
4. Porteous MJ. Operating practices of and precautions taken by orthopaedic surgeons to avoid infection with HIV and hepatitis B virus during surgery. *B Med J* 1990 ; 301 : 167-169.
5. Singh BI, Nurein H, Sinha S et al. Risk of conjunctival contamination in total joint arthroplasty. *J Hosp Infect* 2006 ; 63 : 275-280.