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# Minimum body height requirements for police officers – an international comparison



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The use of defined minimum body height standards for police officers was analyzed for all countries of the European Union and some European non-EU countries. More than 50 % of the countries of the European Union defined minimum height requirements for police officers. However, the variation of such requirements within Europe is quite high. Cut-offs range from 152 cm in Belgium to 170 cm in Greece, Malta and Romania. The majority of countries defined gender-specific cut-off values, few countries such as Germany showed no uniform practice because each federal state defined its own height standards. In all countries the defined cut-off values are not the result of scientific evaluation.

## INTRODUCTION

Standards for height and sometimes for weight are widely used to screen or evaluate job applicants for various occupations (Judge/Cable 2004; Case/Paxson 2008). Nearly everybody has already heard about minimum height standards for fashion models or cabin crews of many airlines, but minimum height standards are also defined for firefighters, members of the army corps and police officers (Kuruganti/Rickards 2004). Especially the job of policing is widely assumed to require a great deal of physical prowess. Adequate physical strength was described as essential for tasks such as intervening in physical disputes, aggressive conflicts or the simple pulling of victims from wrecked cars (Lonsway 2003). Therefore tallness and physical strength were assumed as appropriate somatic characteristics of police officers. In many police forces around the world, standards of body height were set, and minimum body height requirements were defined.

Applicants not meeting these standards would not be considered. The history of these minimum height requirements is quite long. At the end of the 19<sup>th</sup> century, minimum body heights for British policemen were defined (Shpayer-Makov 2004). The measurement of body height was obligatory for recruits and soldiers since the 18<sup>th</sup> century and many policemen served in the army before changing to the police forces (Hoffman 1918; Emsley 2000). Body height and especially tallness symbolized strength, status and power, essential characteristics for a policeman who represented the State. Furthermore, at this time (19<sup>th</sup> century), stature height was also a very useful instrument to diagnose effectively malnutrition and some other somatic deficiencies, conditions considered inappropriate for police officers (Bogin 1999). During the 19<sup>th</sup> century and the first half of the 20<sup>th</sup> century, police work was extremely demanding physically. Policemen had to walk their beat or

had to go by bicycle or on horseback in all kinds of weather, up and down hills and less frequently in an urban environment. Physical confrontation happened regularly and policemen had to be able to defend themselves (Bonneau/Brown 1995). It was supposed that large men were better able to do this kind of work. During the second half of the 20<sup>th</sup> century and especially in the last 30 years police work has changed. According to recent research, police work is largely sedentary and 80 % to 90 % of the job is devoted to tasks that require only limited physical abilities (Bonneau/Brown 1995). Another problem was the increasing number of female police officers (Sultan/Townsey 1981, Balkin 1988). In many countries, not gender-specific height standards were defined and therefore a disproportionate number of female applicants were screened out from the selection process because they were simply too short. In the United States, the courts rejected height standards as discriminatory under Title VII of the 1964 Civil Rights Act. Minimum height requirements were called discriminatory and the term "heightism" was introduced (Rosenberg 2009). However, was only in 1983 that height standards for police officers were generally abolished in the USA (Lonsway 2003). Great Britain, Australia, New Zealand and some European countries followed. Minimum body height standards were replaced by various other indicators of physical fitness, mainly the body mass index (BMI) and physiological tests (Maher 1984; Ash et al. 1990; Avery et al. 1992; Gaines et al. 1993; Bonneau/Brown 1995; Trottier/Brown 1995; Lonsway 2003; Copay/Charles 1998, Sørensen et al. 2000; Weyand/Davis 2005). The rejection of minimum height standards for policemen, however, was not based on results of appropriate scientific research, it was mainly a decision of political

correctness because, beside female applicants, members of ethnic minority groups were discriminated by height standards defined for a male white population (Hoffman/Hickey 2005). The critical discussion of the appropriateness of defined height standards for police officers still continues. Height standards were defined in some cases more than 50 years ago for a homogeneous male population. The process of secular acceleration, however, has resulted in a drastic increase of mean body heights in nearly all industrialized countries (Bielicki/Charzewski 1983; Bogin 1999). Furthermore, international migration and globalization have led to ethnic heterogeneous populations with different mean body heights (Sälzler 1967; Huh/Bloch 2003, Behr 2010). This is also true of Austria. Minimum height standards were defined in 1954, more than 50 years ago. However, Austria defined separate height standards for male and female police officers, which was an exception at that time. Until today the minimum body height for police applicants in Austria is 168 cm for men and 163 cm for women. But are these minimum height requirements up to date? Reliable scientific studies concerning the use and sense of minimum height standards for policemen are extremely rare. Therefore, the aim of the present study was to carry out an international comparison of minimum height requirements.

## STUDY DESIGN AND METHODS

### Data collection

Data collection for the present study took place between February and March 2010. As a first step, quantitative data regarding minimum body height requirements for police officers were collected using of a short questionnaire which was specially developed for the present investigation. This questionnaire was sent via email to

all CEPOL addresses. CEPOL email addresses were available for all member states of the European Union but also for the following associated countries: Norway, Iceland and Switzerland. Additionally, the questionnaire was sent to police academies and Ministries of Internal Affairs. For all other European countries, police academies and Ministries of Internal Affairs were contacted only. The return rate was exceptionally high for the European Union countries, Switzerland, Norway and Iceland (100 %). All contacted CEPOL contact persons returned the questionnaire. Unfortunately the return rate from European non EU countries was very low. It was only possible to collect data from Serbia and Turkey. From all other countries of Former Yugoslavia (Croatia, Macedonia, Bosnia-Herzegovina, Montenegro and Kosovo), Albania, and the countries of the former Soviet Union (Russia, Belarus, Moldova, Ukraine, Georgia), no data are available.

**The Questionnaire**

The short questionnaire was specifically developed for the present investigation. It contained eight questions concerning the existence of minimum height requirements for police officers. Detailed information regarding gender- and ethnicity specific height requirements and the reasons for the use of minimum height requirements were asked about. If no minimum height requirements were defined, it was asked when and why former minimum height requirements had been abolished and what kind of physical tests had replaced the old body height standards. The questionnaire was available in German, English and French.

**Statistical Analysis**

The statistical analyses were carried out by means of SPSS program Version 16.0. Absolute and relative frequencies were calculated.

**RESULTS**

**International comparison**

The use of obligatory body height standards for police officers is extremely heterogeneous within the European Union countries. At the moment, more than 50 % of the EU countries define obligatory minimum body heights for police officers and job applicants. In 14 of the 27 EU countries (51.8 %), a defined minimum body height is required to become a police officer. In contrast, 48.2 % of the EU countries recruit police officers without any defined standards of body height. Some of these countries have abolished minimum height requirements more than 20 years ago.

As to be seen in Figure 1, minimum height requirements were abolished mainly in northern and some parts of western Europe (Denmark, Finland, Sweden, Norway, Iceland, Great Britain, Ireland, Netherlands and Luxembourg) as well as in some states of the former Eastern bloc (Estonia, Lithuania,

Source: Kirchengast

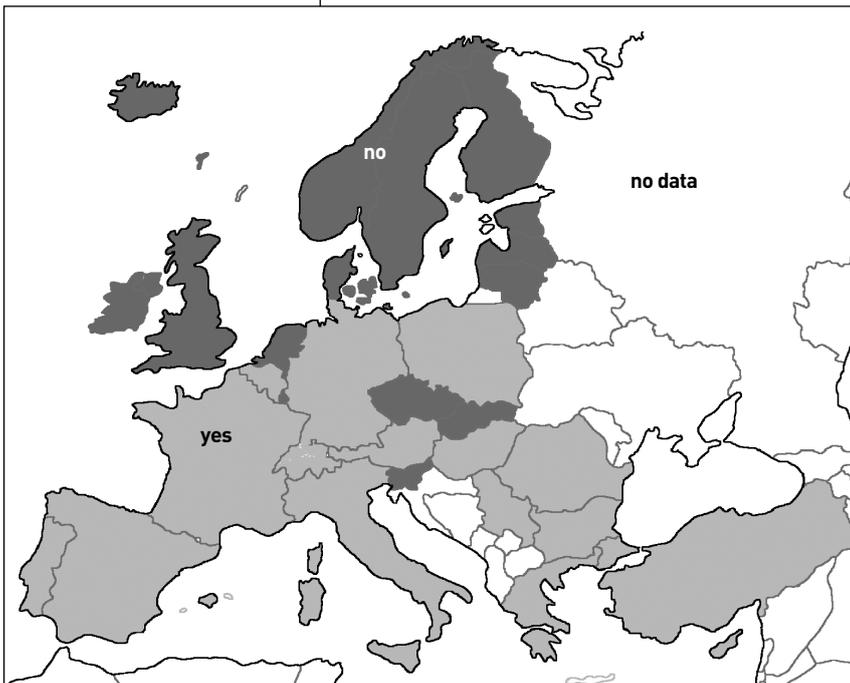


Fig. 1: minimum body height requirements for police officers in Europe'

Latvia, Slovenia, Slovakia and the Czech Republic). In central Europe and the Southern parts of Europe, minimum height standards are still in use. In Table 1, minimum body heights for police officers according to gender are listed, but regional differences within the individual countries in minimum body height requirements are not mentioned. In the case of countries with regional differences in height standards (such as Germany or Switzerland) the mean values of height standards are listed.

Source: Kirchengast

Country	Minimum body height (in cm)	
	male	female
Austria	168	163
Belgium	152	152
Bulgaria	168	160
Cyprus	165	160
Czech Republic	-	-
Denmark	-	-
Germany	164	162
Estonia	-	-
Finland	-	-
France	160	160
Greece	170	170
Hungary	165	162
Iceland	-	-
Ireland	-	-
Italy	165	161
Latvia	-	-
Lithuania	-	-
Luxembourg	-	-
Malta	170	165
The Netherlands	-	-
Norway	-	-
Poland	165	160
Portugal	165	160
Romania	170	165
Serbia	170	163
Slovakia	-	-
Slovenia	-	-
Spain	165	160
Sweden	-	-
Switzerland	167	157
Turkey	167	165
United Kingdom	-	-

**Table 1: Minimum body height requirements within the European Union**

As to be seen in Table 1, minimum height requirements differ markedly within Europe, from 152 cm in Belgium up to 170 cm in Greece, Malta and Romania. Applicants for the Swiss Guard of the Vatican have to be exceptionally tall. Here, a minimum height of 178 cm is required.

### Gender-specific minimum height requirements

In the majority of European countries, gender specific minimum height standards are defined (Bulgaria, Germany [some federal states], Italy, Austria, Malta, Poland, Portugal, Romania, Spain, Hungary and Cyprus, but also Serbia, Switzerland and Turkey). Exceptions are only Belgium, Greece and France as well as some federal states of Germany. In these countries, the same minimum height standards are defined for male and female applicants. In Belgium, this is not discriminatory against women because the minimum height requirement is 152 cm and therefore only 2 % or 5 % of the adult population of Belgium are too small to become a police officer. In Greece, however, a disproportionate number of women may be screened out from the selection process, because of a minimum height requirement of 170 cm. The mean body height of adult Greek women is 164 cm.

As to be seen in Figures 2 and 3 (see page 56), the body height standards vary considerably in the different European countries. Especially high values are defined by Greece, Malta and Romania for male as well as for female applicants.

### Minimum height requirements according to rank and regions

Bulgaria, Spain and Italy defined separate minimum height standards for different ranks within the police force. Officers have to be taller than “normal“ policemen. In France, for example, for members of the

Gendarmerie the minimum height standard is 170 cm, for normal policemen, in contrast, the height standard is 160 cm only. Three EU countries, Germany, Spain and Italy, but also Switzerland define different minimum height standards for diffe-

rent federal states. The situation in Germany is especially confusing as five federal states (31.2 %) define no minimum height standards, seven federal states (43.8 %) define the same standards for men and women and four federal states (25 %) define gender specific minimum height requirements.

Source: Kirchengast

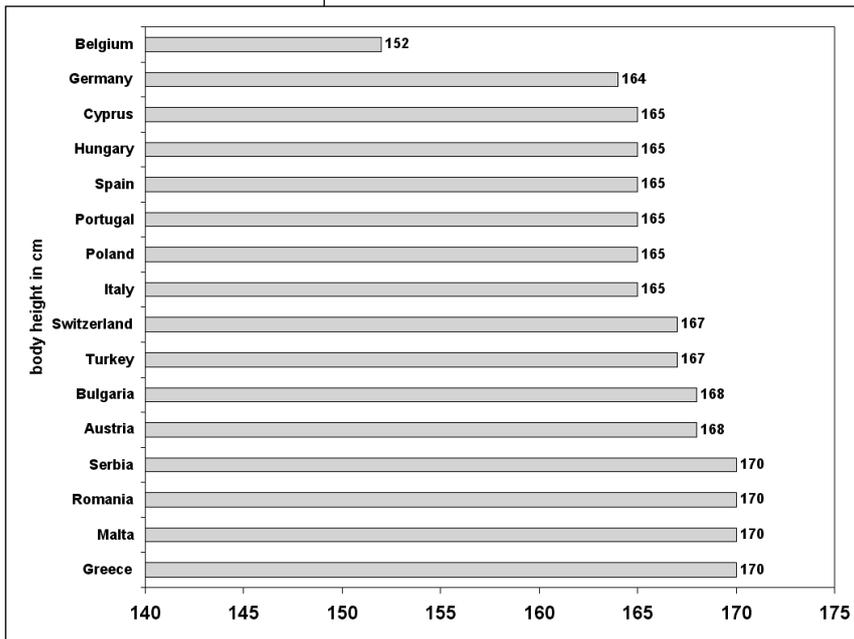


Fig. 2: Minimum height requirements for male police officers

Source: Kirchengast

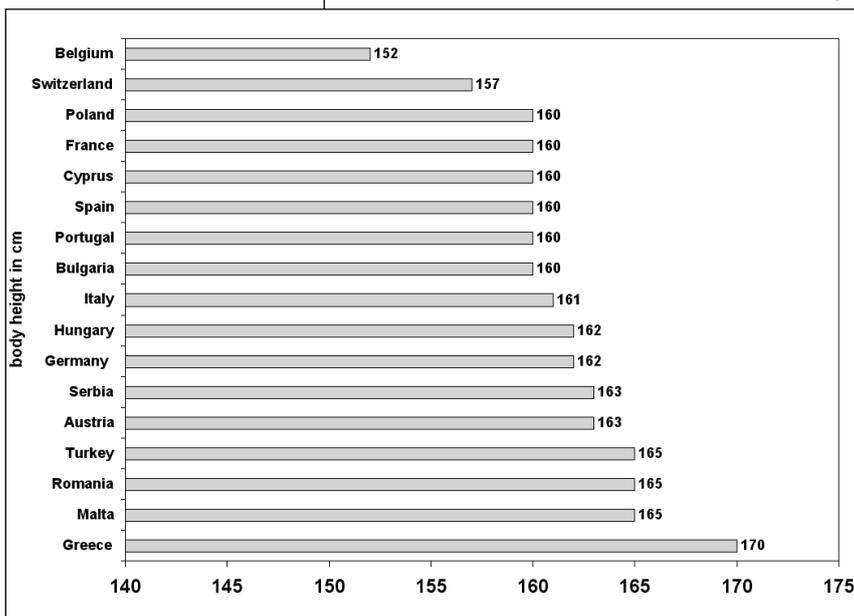


Fig. 3: Minimum height requirements for female police officers

### Reasons for minimum height standards

The reasons to define minimum height standards are presented in Figure 4 (see page 57). The main reasons for minimum height standards were esthetic ones (78.5 %). Tallness implicates power and status and it looks good. Another important reason for minimum height standards is the postulated association between tallness and physical fitness (57.1 %). Furthermore, the psychological importance of tallness (35.7 %) was mentioned. More than 20 % stated that no reasons for minimum height standards are known and no minimum height standard was based on the results of scientific studies.

### Reasons for abolishment of minimum height standards

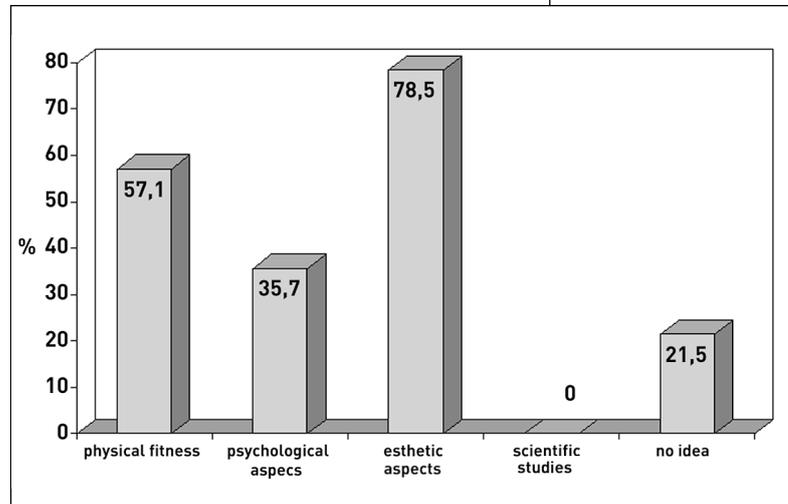
As to be seen in Figure 5 (see page 57), the main reasons for the abolishment of minimum height standards were political ones. 92.3 % mentioned the problem of discriminatory effects of minimum height standards. According to 76.9 %, minimum height standards would not improve daily police work, and 69.2 % mentioned stature height is not associated with physical fitness. The decision to abolish minimum height standards was never based on the results of scientific studies.

### DISCUSSION

The results of the present study show that within Europe and especially within the European Union no uniform standards regarding physical requirements for police

officers exist. Today, minimum height requirements are defined in more than 50 % of the European Union countries. However, the standards used vary considerably. Astonishingly, none of these defined height standards are based on the results of appropriate scientific research. This is really a pity, and an evaluation of current height standards and an analysis concerning sense and usefulness of minimum height standards seems to be a top priority. Here we are confronted with the question which scientific disciplines should be involved in such analyses. On the one hand, body height is a classical anthropometric parameter and therefore bioanthropology seems to be the correct field. On the other hand, minimum height standards are defined because stature height is used as an indicator of physical fitness. Additionally, the psychological effects of body height are mentioned as extremely important for police officers. These two points of view plead for a sports-anthropological investigation and a psychological-ethological one, too. Unfortunately, only very few bioanthropological studies focusing on anthropometric characteristics of police officers exist (Sörensen et al. 2000; Zorec 2009). Both studies revealed that the physical demands of that specific profession are high, and the authors recommended the evaluation of muscle strength, weight status and body composition of policemen every year. Stature height standards only do not seem to be an appropriate inclusion criterion for job applicants. Another important bioanthropological aspect demonstrating the weakness of the definition of minimum height standards for policemen is the fact that the individual body height is not constant. Anatomically, body height is a composite of the linear dimensions of the skull, the vertebral column, the pelvis and the legs. However, with age, body height decreases. Between the age

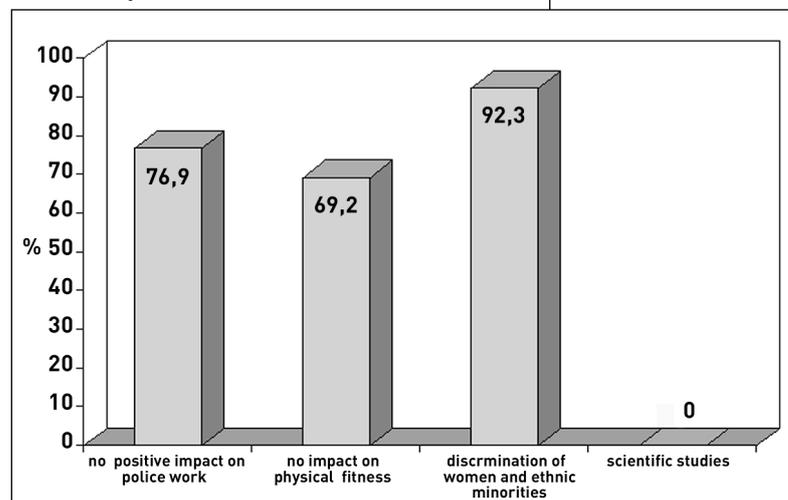
Source : Kirchengast



**Fig. 4: Reasons for defined height standards for police officers**

of 30 and the age of 60, body height decreases by between 3 cm and 5 cm for all healthy individuals (Sorkin et al. 1999). This is

Source : Kirchengast



**Fig. 5: Reason for abolition minimum height standards**

mainly due to a compression of the intervertebral discs. On the other hand, a diurnal variation in stature height is described (Siklar et al. 2005; Krishan/Vij 2007). According to these studies, stature is maximum in the morning and less by 1.5 cm to 3.0 cm in the evening. This circadian decrease in stature is also caused by a reduc-

tion of the intervertebral discs, a consequence of human biped locomotion. According to these observations, we have to be aware that body height changes circadian in the course of day and, as a result of the general ageing process, through adulthood. These changes in body height show that minimum height requirements with strict cut-offs for policemen are not useful because a police officer who met the criteria in the morning hours at the age of 20 will not meet them in the evening or at the age of 50 years. A further bioanthropological problem of minimum height requirements are the use of correct anthropometric measurements. It seems to be very easy to measure body height, but reliable and valid body height data are only available if correct methods are applied for body height measurement (Knussmann 1988). Minimum height standards make sense only if well trained personal takes the measurements otherwise technical errors may occur. One argument for the usefulness of minimum height standards for policemen is the assumption that stature height is an appropriate indicator of physical fitness. Since no reliable scientific paper concerning the association between stature height and physical fitness of police officers exists up to now, we have to analyse the results of sports anthropology. Today, a lot of papers exist which describe the interaction between stature height and running performance or stature height and shooting scores (Khosla 1978; Bernhard/Jung 1998; Weyand/Davis 2005, Raschka 2006; Mononen et al. 2007). However, it turned out that stature height alone is not enough to predict physical fitness, much more important are the body mass index (BMI) and the amount of muscle mass. From a sports anthropological point of view, stature height alone is not an appropriate indicator of physical fitness.

It is unquestionable that police work, which is generally quite sedentary, includes sometimes extreme physical stress, which includes running, tackling, pushing, pulling and wrestling. Several of these tasks are physically very challenging (Bachman/Coker 1995, Euwema et al. 2004).

The inability to perform these duties would clearly endanger police officers themselves, their fellow officers and the general public (Anderson/Plecas 2001). Stature height alone, however, is not enough to predict the physical ability of a person to cope with these somatic stress phases. The critical discussion of the usefulness of minimum height standards for police officers is not complete without the discussion of psychological and ethological aspects. Stature height, especially among males, is directly related to dominance and social status (Freeman 1979; Buunk et al. 2008). Many studies focused on the complex interaction between stature height and economic success, workplace success and social status, but also reproductive success (Mueller/Mazur 2001; Judge/Cable 2004, Swami et al. 2008). All these studies reported a positive association between tallness and a successful life. Evolutionary psychology explains this positive association between tallness and success with the observation that tallness is interpreted with dominance and danger. Schwartz (Schwartz et al. 1982) interpreted tallness as a non-verbal symbol of dominance. Police work is characterized by coping with physical conflicts. The results of several studies plead for a positive association between physical strength antisocial behaviour and aggression (Ishikawa et al. 2001; Archer/Thanzami 2007). Therefore police officers are often involved in conflict situations with tall and muscular individuals. Therefore, increased body height of police officers may represent an advantage because

the tallness of police officers may lead to a de-escalation of the situation. This may also be also due to the fact that a tall police officer symbolizes power, dominance and physical strength. Unfortunately, no scientific studies concerning this interesting topic are available up to now.

## CONCLUSION

What can we conclude from the results of this study? The main problem is the lack of reliable research concerning the effects of body height on the duties of daily police

work. This lack of information leads to the great variation of handling minimum height requirements for police officers in European countries. From a bioanthropological and a sports anthropological point of view, the strict definition of minimum height standards is not useful. The positive experiences in countries where minimum height requirements are abolished pleads for a critical re-evaluation of defined minimum body heights as obligatory selection criteria for police officers.

<sup>1</sup> Legend: dark grey = no minimum height requirements, bright grey = defined minimum height requirements, white = no data available.

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