

# **2006 CODATA Beijing Conference**

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## **Comparing Samples from Different Countries for Key Sizing Dimensions**

**Oct. 22-25, 2006**

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# Size Designation of Clothes

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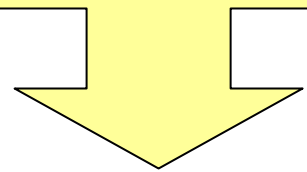
**Body Size  
Measurement**



**Key  
Dimensions**



**Standard  
Pictogram**



- **Classification of the Age Groups**
- **Build the Standards**
- **Promote the Compatibility of the Sizing Database**

# Objective

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- **Provides Body Size Data to support Knowledge Management Network System**
- **Provides Size Code Compatibility Data to support Information Sharing Network System**
- **Provides Data and Analytical tools to support Information Network System**

# Outline

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- **Standards for Measurement**
- **Standard Organizations**
- **Standards for the Wearable Items**
- **Standard in Clothing(KS, AFNOR, ISO, JIS, ASTM, NSZ)**
- **Distribution of the Key Dimensions**
- **Comparing Samples from Different Countries**

# Standards for Measurement

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**ISO 7250 :**

**Anthropometric Surveys-Body Dimensions**

**ISO 8559 :**

**Garments Construction and Anthropometric Surveys-Body Dimensions**



# Standards for Wearable Items

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- **Outwear**
- **Underwear, Nightwear, Foundation garment and shirts**
- **Pantyhose, Hosiery**
- **Footwear**
- **Headgear**

# Standard Organizations

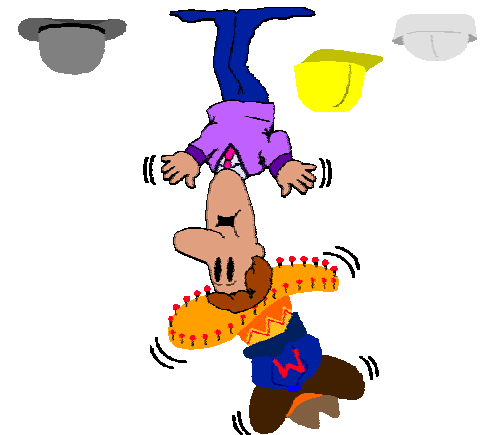
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- **BSI**(British Standard Institute)
- **ANSI**(American National Standard Institute)
- **DIN** (Deutscher Normenausschuss)
- **JIS** (Japanese Industrial Standard)
- **AFNOR** (Association French Norme)
- **ISO** (International Organization for Standardization ; 1947)

# Standards(I) **KS**

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- KS K 0050 : Men's wear**
- KS K 0051 : Womens' wear**
- KS K 0052 : Infants**
- KS K 0059 : Headgear**
- KS K 0070 : Brassiere**
- KS K 0037 : Dress Shirts**
- KS K 0088 : Socks**





# Standards (II)

**AFNOR**

- NF G 03-001 Pictogram de taille**
- NF G 03-002 Mesures feminines**
- NF G 03-007 Size designation for men women**
- NF G 03-008 Habillement.Collants-Tailles-  
Designation-Marquage**
- NF G 03-102 Habillement.Sous-Vetements du haut  
du corps pour hommes et enfants.**
- NF G 05-004 Habillement. Dessin technique pour  
industrie du vetement**

# Standards(III) ISO

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- ISO3635 Size Designation of Clothes. Definition and Body Measurement Procedures**
- ISO3636 Size Designation of Clothes-Men's and Boys' Outwear Garments**
- ISO3637 Size Designation of Clothes-Women's and Girls' Outwear Garments**
- ISO4415 Size Designation of Clothes- Men's and Boys' Underwear**
- ISO4416 Size Designation of Clothes-Women's and Girls' Underwear, Nightwear**
- ISO8559 Garments Construction and Anthropometric Surveys-Body Dimensions**

# Standards(IV) **JIS**

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**JIS L 4004      Sizing Systems for Men's  
Garments**

**JIS L 4005      Sizing Systems for Women's  
Garments**

**JIS L 4002      Sizing Systems for Boys'  
Garments**

**JIS L 4003      Sizing Systems for Girls'  
Garments**

# Standards (V) **ASTM**

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**ASTM  
D 5586**      **Standard Tables of Body  
Measurements for Women**

**ASTM  
D 5219**      **Terminology Reverting to a Body  
Dimensions for Apparel Sizing**

**ASTM  
D4910**      **Standard Tables of Body  
Measurements for Enfants**

# Standards (VI-1) **NSZ**

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- NSZ 8771 Size Designation and Body Measurements for Babys and Enfant**
- NSZ 8772 Size Designation and Body Measurements for the Sizing of Girls' Ready-to-wear**
- NSZ 8773 Size Designations and Body Measurements for the Sizing of Women's Ready-to-wear**
- NSZ8774 Size Designations and Body Measurement for the Sizing of Boys' (junior male) Ready-to-wear Clothing**
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# Standards (VI-2) **NSZ**

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**NSZ  
8775**      **Men's Ready-to-wear Clothing other  
than Shirts**

**NSZ  
8776**      **Size Designations and Body  
Measurements for the Sizing of Men's  
Business Shirts and Sports Shirts**

**NSZ  
8777**      **Men's Industrial Overalls to General  
Purposes**

# Standardization in Sizing

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- **Promote the compatibility in Business**

# Classification Age Groups

<b>ISO</b>	<b>ASTM</b>	<b>AFNOR</b>	<b>JIS</b>	<b>KS</b>
<b>Men</b>	<b>Men</b>	<b>Homme</b>	成人男子	남자
<b>Women</b>	<b>Women Missy</b>	<b>Femme</b>	成人女子	여자
<b>Boys'</b>	<b>Junior</b>	<b>Garcon</b>	青少年 男子	청소년
<b>Girls'</b>		<b>Fille</b>	青少年 女子	
<b>Infant</b>	<b>Infant</b>	<b>Enfant</b>	乳兒	유아



# Classification in Body Shape(Women)

ISO		AFNOR	ASTM	JIS	KS	
A type	12	M	Miss Petite (151-159cm)	A type S 142-166cm(8cm) B 74- 94cm(3cm) H 92-104cm(4cm)	A type	12
			Miss (159-170cm)			
M type	6	N	Miss tall (169-177cm)	Y type Hip(Atype-4cm)	N type	6
			Adult Missy (161-173cm)			
H type	0	F	Women (162-170cm)	AB type Hip(Atype+4cm)	H type	0
			Half (152-163cm)			

# Classification in Height(Women)

ISO		AFNOR		ASTM		JIS		KS	
S	160	S	152	Miss		Petite	150	Petite	145-155
				Short	151-159				
R	168	R	160	M	159-170	Regular	158	Regular	155-165
				Tall	169-177				
				Adult		Tall	160		
L	176	L	168	M	161-170			PP	142
				S	152-163				

# Key Dimensions (USA, Women)(I)

<b>Miss Tall (169-177)</b>	<b>code</b>	<b>MT10</b>	<b>MT12</b>	<b>MT14</b>	<b>MT16</b>	<b>MT18</b>	<b>MT20</b>	<b>MT22</b>	
	<b>Bust</b>	<b>84.3</b>	<b>90.1</b>	<b>93.7</b>	<b>97</b>	<b>101.5</b>	<b>106.5</b>	<b>113.9</b>	
	<b>Waist</b>	<b>72.4</b>	<b>77.9</b>	<b>82.0</b>	<b>85.7</b>	<b>90</b>	<b>96.1</b>	<b>104.6</b>	
	<b>Hip</b>	<b>95.1</b>	<b>98.8</b>	<b>101.8</b>	<b>105.4</b>	<b>108.2</b>	<b>112.2</b>	<b>119.6</b>	
	<b>HT</b>	<b>169.3</b>	<b>170.8</b>	<b>171.8</b>	<b>173.5</b>	<b>175.3</b>	<b>176.9</b>	<b>177.3</b>	
<b>Half (152-163)</b>	<b>code</b>	<b>12.5</b>	<b>14.5</b>	<b>16.5</b>	<b>18.5</b>	<b>20.5</b>	<b>22.5</b>	<b>24.5</b>	<b>26.5</b>
	<b>Bust</b>	<b>94.4</b>	<b>100.3</b>	<b>104.6</b>	<b>108.3</b>	<b>111.1</b>	<b>116.3</b>	<b>120.7</b>	<b>126.3</b>
	<b>Waist</b>	<b>82</b>	<b>88.6</b>	<b>94.0</b>	<b>97.7</b>	<b>101.4</b>	<b>106.7</b>	<b>109.6</b>	<b>116.2</b>
	<b>Hip</b>	<b>96.6</b>	<b>102.4</b>	<b>107.8</b>	<b>111.2</b>	<b>115.2</b>	<b>120.2</b>	<b>124.7</b>	<b>128.8</b>
	<b>Ht</b>	<b>152.1</b>	<b>152.8</b>	<b>154</b>	<b>156.9</b>	<b>158.9</b>	<b>159.9</b>	<b>161.2</b>	<b>162.6</b>

# Key Dimensions (USA, Women)(II)

<b>Wome ns (162- 170)</b>	<b>code</b>	<b>W 34</b>	<b>W 36</b>	<b>W 38</b>	<b>W 40</b>	<b>W 42</b>	<b>W 44</b>	<b>W 46</b>	<b>W 48</b>	<b>W 50</b>	<b>W 52</b>
	<b>Bust</b>	<b>98.9</b>	<b>103. 1</b>	<b>107.9</b>	<b>112.1</b>	<b>116.5</b>	<b>119.2</b>	<b>127</b>	<b>129.5</b>	<b>139.7</b>	<b>148</b>
	<b>Waist</b>	<b>87.1</b>	<b>92.3</b>	<b>97.7</b>	<b>102.2</b>	<b>106.1</b>	<b>110.5</b>	<b>115.7</b>	<b>126.1</b>	<b>124.5</b>	<b>132</b>
	<b>Hip</b>	<b>102.8</b>	<b>107. 9</b>	<b>112.1</b>	<b>117.0</b>	<b>117.8</b>	<b>126.9</b>	<b>128.3</b>	<b>136.4</b>	<b>134.2</b>	<b>158</b>
	<b>HT</b>	<b>162.4</b>	<b>163. 7</b>	<b>164.6</b>	<b>165.8</b>	<b>168.7</b>	<b>169</b>	<b>169.6</b>	<b>168.8</b>	<b>165.8</b>	<b>163.5</b>
<b>Adult missy (161- 173)</b>	<b>code</b>	<b>2</b>	<b>4</b>	<b>6</b>	<b>8</b>	<b>10</b>	<b>12</b>	<b>14</b>	<b>16</b>	<b>18</b>	<b>20</b>
	<b>Bust</b>	<b>81.3</b>	<b>84</b>	<b>86</b>	<b>89</b>	<b>91</b>	<b>95</b>	<b>99</b>	<b>103</b>	<b>108</b>	<b>113</b>
	<b>Waist</b>	<b>61</b>	<b>64</b>	<b>66</b>	<b>69</b>	<b>71</b>	<b>75</b>	<b>79</b>	<b>83</b>	<b>88</b>	<b>93</b>
	<b>Hip</b>	<b>86</b>	<b>90</b>	<b>93</b>	<b>95</b>	<b>98</b>	<b>102</b>	<b>105</b>	<b>109</b>	<b>114</b>	<b>119</b>
	<b>HT</b>	<b>161</b>	<b>163</b>	<b>164</b>	<b>165</b>	<b>166</b>	<b>168</b>	<b>169</b>	<b>170</b>	<b>172</b>	<b>173</b>

# Key Dimensions (NSZ, Women)(I)

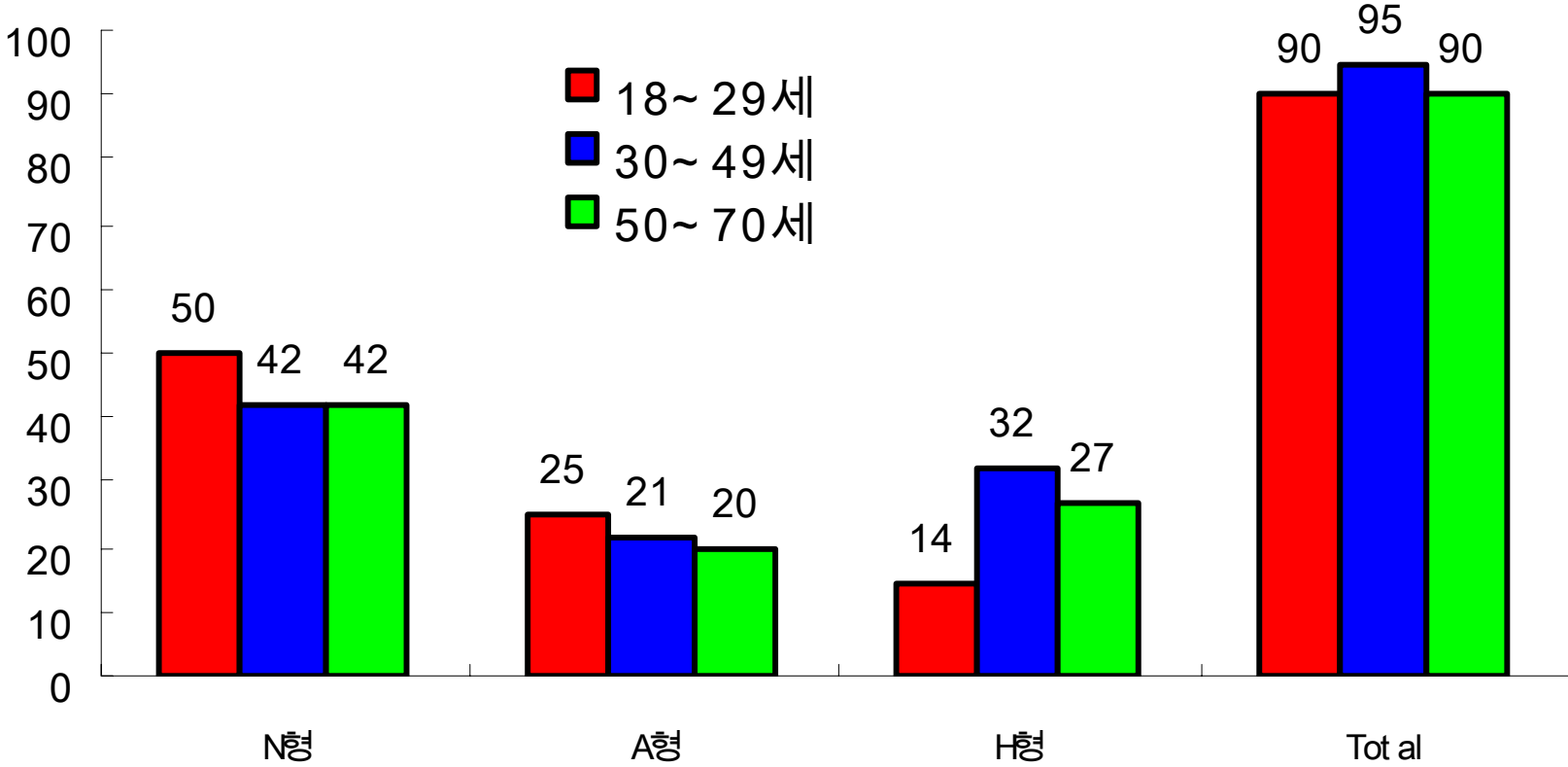
<b>Short</b>	<b>code</b>	<b>10</b>	<b>12</b>	<b>14</b>	<b>16</b>	<b>18</b>	<b>20</b>	<b>22</b>	<b>24</b>
	<b>Bust</b>	<b>82</b>	<b>87</b>	<b>92</b>	<b>97</b>	<b>102</b>	<b>107</b>	<b>112</b>	<b>117</b>
	<b>Waist</b>	<b>62</b>	<b>67</b>	<b>72</b>	<b>77</b>	<b>82</b>	<b>87</b>	<b>92</b>	<b>97</b>
	<b>Hip</b>	<b>92</b>	<b>97</b>	<b>102</b>	<b>107</b>	<b>112</b>	<b>117</b>	<b>122</b>	<b>127</b>
	<b>Height</b>	<b>152-160</b>							
<b>Tall</b>	<b>code</b>	<b>12</b>	<b>14</b>	<b>16</b>	<b>18</b>	<b>20</b>			
	<b>Bust</b>	<b>87</b>	<b>92</b>	<b>97</b>	<b>102</b>	<b>107</b>			
	<b>Waist</b>	<b>67</b>	<b>72</b>	<b>77</b>	<b>82</b>	<b>87</b>			
	<b>Hip</b>	<b>97</b>	<b>102</b>	<b>107</b>	<b>112</b>	<b>117</b>			
	<b>Height</b>	<b>170-175</b>							

# Key Dimensions (NSZ, Women)(II)

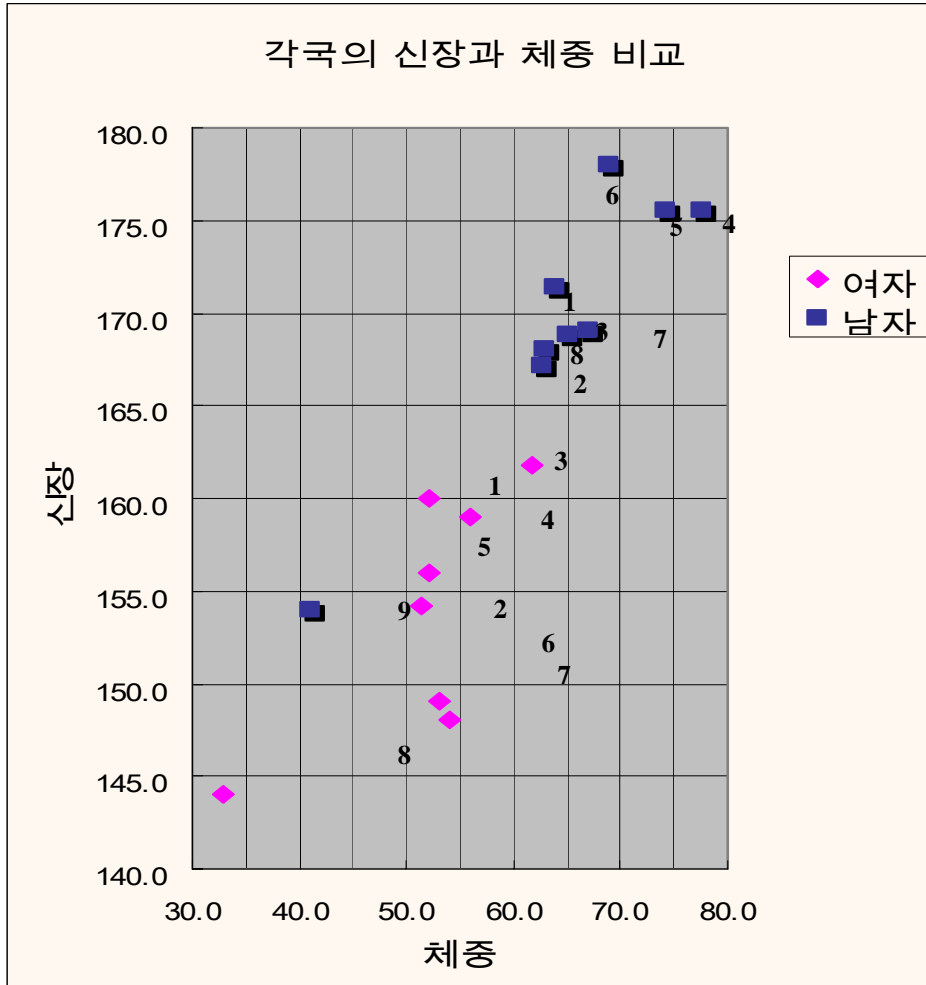
<b>Slim Hips</b>	<b>code</b>	<b>10</b>	<b>12</b>	<b>14</b>	<b>16</b>	<b>18</b>
	<b>Bust</b>	<b>82</b>	<b>87</b>	<b>92</b>	<b>97</b>	
	<b>Waist</b>	<b>62</b>	<b>67</b>	<b>72</b>	<b>77</b>	
	<b>Hip</b>	<b>87</b>	<b>92</b>	<b>97</b>	<b>102</b>	
	<b>Height</b>	<b>157-165</b>				
<b>Full Hips</b>	<b>code</b>	<b>10</b>	<b>12</b>	<b>14</b>	<b>16</b>	<b>18</b>
	<b>Bust</b>	<b>82</b>	<b>87</b>	<b>92</b>	<b>97</b>	
	<b>Waist</b>	<b>64</b>	<b>69</b>	<b>74</b>	<b>79</b>	
	<b>Hip</b>	<b>97</b>	<b>102</b>	<b>107</b>	<b>112</b>	
	<b>Height</b>	<b>157-165</b>				

# Comparing Samples-KS, Women

카바올(%)



# Comparing Samples(height)



## Men

1. Korea
2. Japan©
3. Japan(pilot)
4. USA©
5. USA(M)
6. UK
7. France
8. Italy

## Womens

1. Korea
2. Japan©
3. USA
4. France
5. Italy
6. China
7. Cambodia
8. Malsia



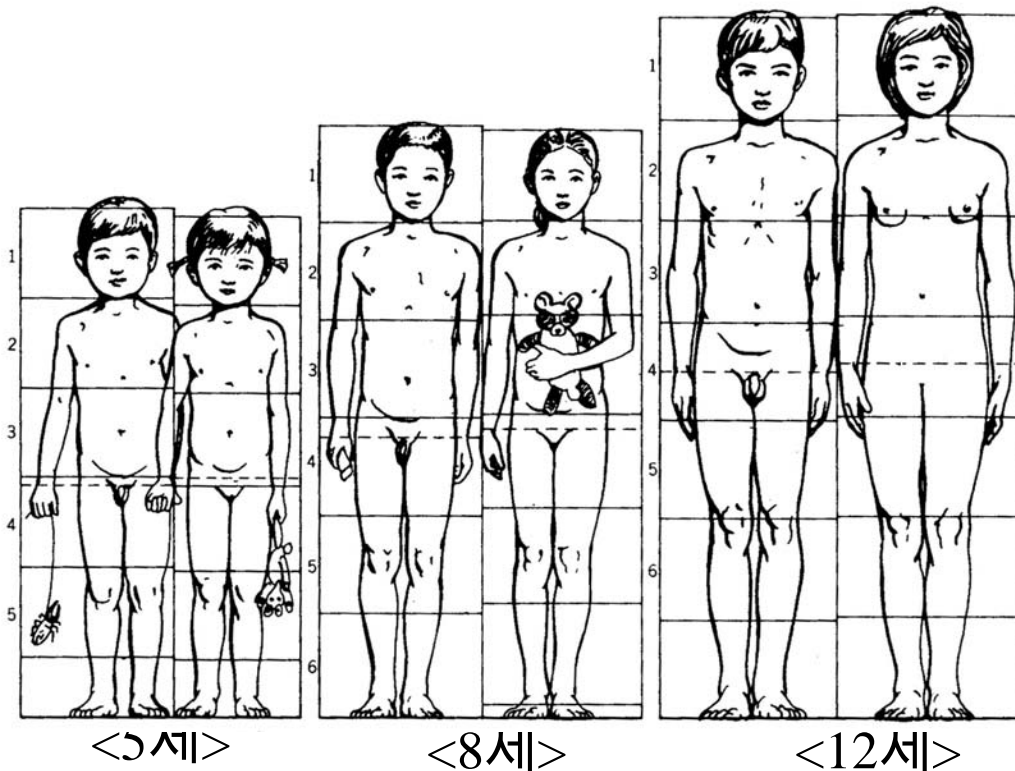
# Comparing Samples(Germany,France,UK)

<b>Germany</b>	<b>34</b>	<b>36</b>	<b>38</b>	<b>40</b>	<b>42</b>	<b>44</b>	<b>46</b>	<b>48</b>	<b>50</b>
<b>Bust girth</b>	<b>80</b>	<b>84</b>	<b>88</b>	<b>92</b>	<b>96</b>	<b>100</b>	<b>104</b>	<b>110</b>	<b>116</b>
<b>Hip girth</b>	<b>90</b>	<b>94</b>	<b>97</b>	<b>100</b>	<b>103</b>	<b>106</b>	<b>109</b>	<b>114</b>	<b>119</b>
<b>Body height</b>	<b>168</b>	<b>168</b>	<b>168</b>	<b>168</b>	<b>168</b>	<b>168</b>	<b>168</b>	<b>168</b>	<b>168</b>
<b>Waist girth</b>	<b>64</b>	<b>68</b>	<b>72</b>	<b>76</b>	<b>80</b>	<b>84</b>	<b>88</b>	<b>94.5</b>	<b>101</b>
<b>France</b>	<b>34</b>	<b>36</b>	<b>38</b>	<b>40</b>	<b>42</b>	<b>44</b>	<b>46</b>	<b>48</b>	<b>50</b>
<b>Bust girth</b>	<b>80</b>	<b>84</b>	<b>88</b>	<b>92</b>	<b>96</b>	<b>100</b>	<b>104</b>	<b>110</b>	<b>116</b>
<b>Hip girth</b>	<b>84</b>	<b>88</b>	<b>92</b>	<b>96</b>	<b>100</b>	<b>104</b>	<b>108</b>	<b>112</b>	<b>118</b>
<b>Body height</b>	<b>160</b>	<b>160</b>	<b>160</b>	<b>160</b>	<b>160</b>	<b>160</b>	<b>160</b>	<b>160</b>	<b>160</b>
<b>Waist girth</b>	<b>58.6</b>	<b>61.8</b>	<b>65.2</b>	<b>68.8</b>	<b>72.6</b>	<b>76.2</b>	<b>79.8</b>	<b>85.1</b>	<b>90.9</b>
<b>Great Britain</b>	<b>8</b>	<b>10</b>	<b>12</b>	<b>14</b>	<b>16</b>	<b>18</b>	<b>20</b>		
<b>Bust girth</b>	<b>80</b>	<b>84</b>	<b>88</b>	<b>92</b>	<b>97</b>	<b>102</b>	<b>107</b>		
<b>Hip girth</b>	<b>85</b>	<b>89</b>	<b>93</b>	<b>97</b>	<b>102</b>	<b>107</b>	<b>112</b>		
<b>Body height</b>	<b>164</b>	<b>164</b>	<b>164</b>	<b>164</b>	<b>164</b>	<b>164</b>	<b>164</b>		
<b>Waist girth</b>	<b>60</b>	<b>64</b>	<b>68</b>	<b>72</b>	<sup>77</sup>	<b>82</b>	<b>87</b>		

# Comparing Samples(Italy, KS, JIS)

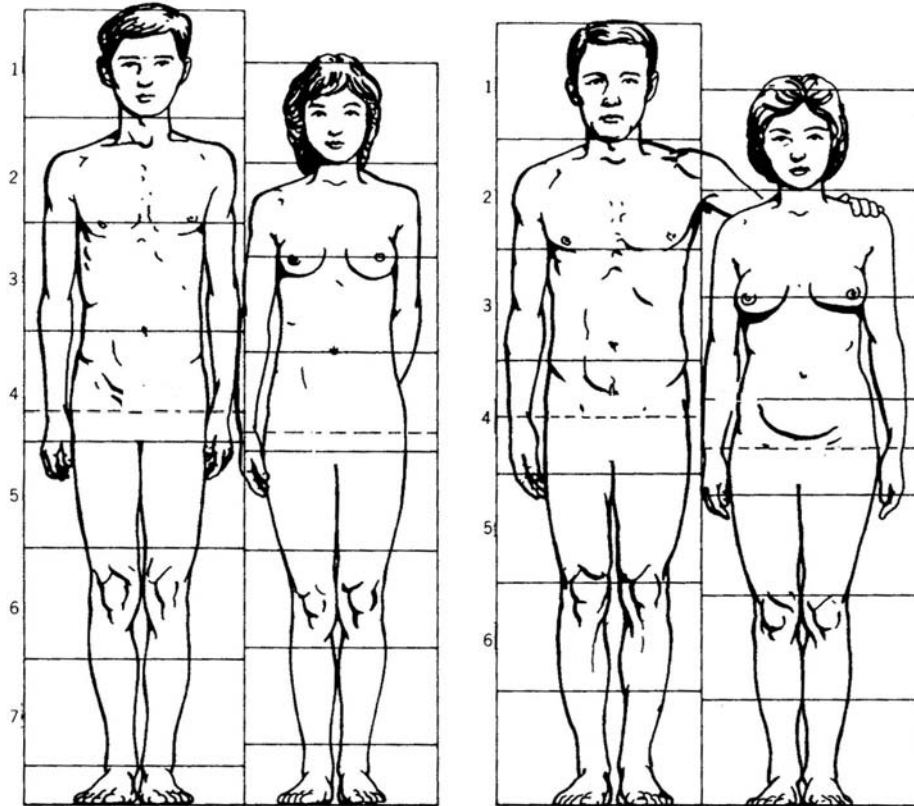
<b>Italy</b>	<b>38</b>	<b>40</b>	<b>42</b>	<b>44</b>	<b>46</b>	<b>48</b>	<b>50</b>	<b>52</b>	
<b>Bust girth</b>	<b>80</b>	<b>84</b>	<b>88</b>	<b>92</b>	<b>96</b>	<b>100</b>	<b>104</b>	<b>110</b>	
<b>Hip girth</b>	<b>86</b>	<b>90</b>	<b>94</b>	<b>98</b>	<b>102</b>	<b>106</b>	<b>110</b>	<b>116</b>	
<b>Body height</b>	<b>164</b>	<b>164</b>	<b>164</b>	<b>164</b>	<b>164</b>	<b>164</b>	<b>164</b>	<b>164</b>	
<b>Waist girth</b>	<b>59</b>	<b>62</b>	<b>65</b>	<b>69</b>	<b>73</b>	<i>77</i>	<b>81</b>	<b>85</b>	
<b>Korea</b>	<b>79</b>	<b>82</b>	<b>85</b>	<b>88</b>	<b>91</b>	<b>94</b>			
<b>Bust girth</b>	<b>79</b>	<b>82</b>	<b>85</b>	<b>88</b>	<b>91</b>	<b>94</b>			
<b>Hip girth</b>	<b>88</b>	<b>90</b>	<b>92</b>	<b>94</b>	<b>96</b>	<b>98</b>			
<b>Body height</b>	<b>160</b>	<b>160</b>	<b>160</b>	<b>160</b>	<b>160</b>	<b>160</b>			
<b>Waist girth</b>	<b>65</b>	<b>68</b>	<b>71</b>	<b>73</b>	<b>75</b>	<b>78</b>			
<b>Japan</b>	<b>7</b>	<b>9</b>	<b>11</b>	<b>13</b>	<b>15</b>	<b>17</b>			
<b>Bust girth</b>	<b>80</b>	<b>83</b>	<b>86</b>	<b>89</b>	<b>92</b>	<b>96</b>			
<b>Hip girth</b>	<b>89</b>	<b>91</b>	<b>93</b>	<b>95</b>	<b>97</b>	<b>99</b>			
<b>Body height</b>	<b>158</b>	<b>158</b>	<b>158</b>	<b>158</b>	<b>158</b>	<b>158</b>			
<b>Waist girth</b>	<b>61</b>	<b>64</b>	<b>67</b>	<b>70</b>	<b>73</b>	<b>76</b>			

# Comparing(Body Height Proportion)



		한국인		일본인	
		두신	평균키 (cm)	두신	평균키 (cm)
5 세	남	5.4	108.9	5.5	110.6
	여	5.7	110.3	5.4	109.8
8 세	남	6.1	128.4	6.0	127.5
	여	6.1	127.6	6.1	126.9
12 세	남	6.8	151.9	6.9	150.0
	여	7.1	153.2	6.9	150.9

# Comparing(Body Height Proportion)



<16세>

<성인>

		한국인		일본인	
		두신	평균키 (cm)	두신	평균키 (cm)
16 세	남	7.4	170.1	7.2	169.2
	여	7.3	159.7	7.3	157.4
성 인	남	7.3	170.2	6.8	167.2
	여	7.2	158.0	6.9	154.2

# Labelling (NSZ)

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**Size 14, Slim Hips**  
**B92 W 72 H 97**

**Two-piece, waist fit**  
**Size 14, Full Hips**  
**B92 W74 H 107**

**One-piece, Semifit**  
**Size 14, Full Hips**  
**B92 H 107**

**Skirt Slacks**  
**Size 14**  
**W 74 H 107**

**Size 14, Short**  
**B 92 W 72 H 102**

# Future Considerations

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- **Body size and shape database in man**
- **Body size and shape database in women**
- **Sizing database in clothing**
- **Compatibility in standard**
- **Compatibility in Size code**
- **Labelling systems**